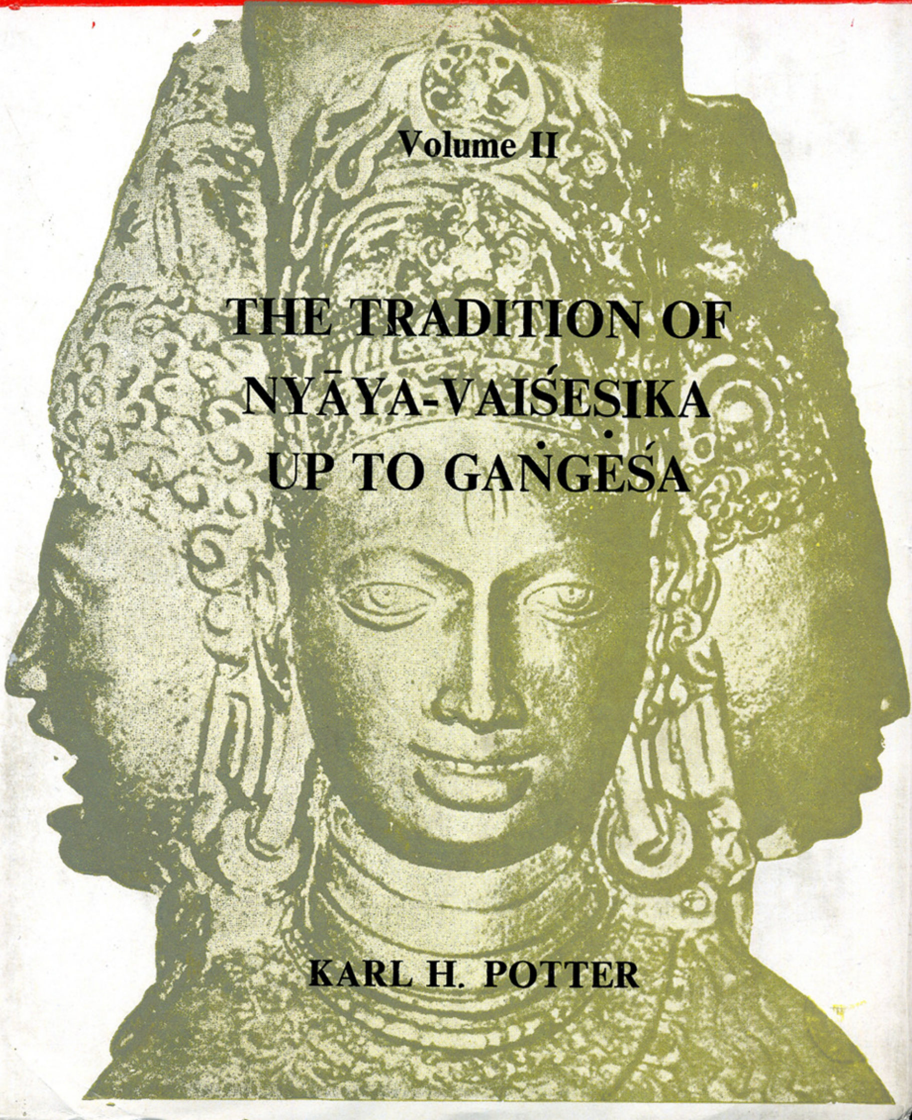
ENCYCLOPEDIA OF INDIAN PHILOSOPHIES

Volume II



THE TRADITION OF NYĀYA-VAIŚEṢIKA UP TO GAṄGEŚA

KARL H. POTTER

ENCYCLOPEDIA OF INDIAN PHILOSOPHIES

Edited by : *Karl H. Potter*

Vol. I
BIBLIOGRAPHY

This volume indicates the scope of the project and provides a list of sources which will be surveyed in the subsequent volumes, as well as provides a guide to secondary literature for further study of Indian Philosophy. It lists, in relative chronological order, Sanskrit and Tamil works. All known editions and translations into European languages are cited; where published versions of the text are not known, a guide to the location of manuscripts of the work is provided. Also it adds books and articles in European languages relating to the classical texts, as well as those of a more general nature relating to schools or systems of Indian language thought. The citations of published works in the present volume cover 10,000 items.

Vol. III
ADVAITA VEDĀNTA : Part I

This volume summarises what we know of early Advaita Vedānta up to Śaṅkara's pupils. An analytical introduction by the editor introduces the reader to the concepts utilized by Gauḍapāda, Śaṅkarācārya and Maṇḍanamiśra in expounding and defending the Advaita views. This is followed by summaries of all the authentic works of these authors together with those of Sureśvara and Padmapāda, as well as a number of other works which have been attributed to Śaṅkara, Toṭaka and Hastāmalaka.

Vol. IV
SĀṂKHYA

This volume traces the history of Sāṃkhya system from its beginnings and its philosophical contours overall. It includes summaries in English of all extant Sanskrit texts of the Sāṃkhya system. Many of the summaries are of Texts that have never been edited, translated or studied before, most notably, extensive treatments of the *Yuktidīpikā*, the *Sāṃkhyavṛtti* and the *Sāṃkhyasaptativṛtti*. Although it is designed for philosophers, cultural historians and students of comparative studies generally, it will be of equal interest to area specialists, Indologists and Sanskritists.

MOTILAL BANARSIDASS

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Indian Metaphysics and Epistemology: The Tradition of Nyāya-Vaiśeṣika up to Gaṅgeśa

EDITED BY

KARL H. POTTER

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CONTENTS

PREFACE

The present volume provides a detailed resumé of current knowledge about the classical Indian philosophical system of Nyāya-Vaiśeṣika in its earlier stages. Specifically, it covers the literatures of Nyāya and Vaiśeṣika from their inception in the respective *sūtras* up to the time of Gaṅgeśa, that is, about A.D. 1350. This dividing point is regularly accepted in the tradition, since with Gaṅgeśa it is felt that a new start is made within the systems, the result coming to be known as Navyanyāya, "new" Nyāya. We hope that a volume will follow covering the remainder of the Nyāya-Vaiśeṣika literature from Gaṅgeśa to the present.

A volume already published, *Bibliography of Indian Philosophies* (New Delhi : Motilal Banarsidass, 1970), provides a useful guide to the literature, both primary and secondary, on the Nyāya-Vaiśeṣika school, and citations in the present book make constant references to the *Bibliography*, such references usually appearing in the form of "B" followed by the number of entry cited.

The form of this book features an extended introductory section followed by summaries of works belonging to the system's literature. These summaries are arranged in relative chronological order to assist the reader in tracing the development of the school's thought. Summaries have been solicited from scholars around the world—Indian, Japanese, and American scholars have collaborated in the undertaking. This international aspect of the book is one of its pleasantest features, serving to put philosophers and Indologists around the world in closer touch with one another.

A few words of explanation and advice as to how to use this book may be in order. Perhaps the first and foremost thing that needs to be said is that this volume is not intended to be analytically definitive: it invites the attention of philosophers and scholars rather than making such attention unnecessary. The thinking behind the preparation of this volume has been that philosophers without extended training in Sanskrit and Indian studies are not in a very good position to appreciate the contributions made by classical Indian philosophy toward the solution of perennial philosophical problems. This is partly due to the fact that the tradition in which the Indian schools arise and grow is foreign to Western philosophers, but our thinking is that this fact is an avoidable hazard. It is also partly due to the type of translations that have been produced by Indian

and Western Sanskrit scholars; these translations, while usually accurate, are not always philosophically perspicuous, which is to say that they do not always bring out what a professional philosopher will find most interesting and identifiable in the material. The production of an acceptable translation is, and ought to be, a serious and extensive scholarly problem, and the summaries in Part II of this book are in no way intended as surrogates for such translations. Nevertheless, we think that philosophers should be provided with a tool for introducing Indian thought into their courses on problems of philosophy, history of thought, etc., and that the translations and other materials currently available to them do not make it really possible for them to work up Indian thought without more training than most philosophers are willing or able to expose themselves to. Our aim here, then, is to provide the philosopher with an account of the systematic thought of India which is less detailed than an accurate translation, but more detailed than the standard introductory textbook on Indian philosophy.

It is to be stressed that the work is addressed to philosophers primarily, and Indologists secondarily. Of course we hope that the materials here presented will, within the limits of our intent, be adjudged sufficiently accurate in terms of scholarship. The editor has endeavored to obtain the work of some of the leading scholars of the system to furnish summaries. However, these summaries omit large portions, may well omit sections which others deem of primary importance, and will otherwise deviate from the evaluations likely to be made by the Sanskritist. In order that there be no misunderstanding it is well to mention these points here. These summaries, then, are not substitutes for scholarship, but guides and markers for further study on the part of trained scholars.

In studying the philosophy of the Nyāya-Vaiśeṣika school one finds that a fair amount of the literature occurs in the *sūtra* or commentary form so well known in India. The reader should bear in mind that, in the summary of one of the *sūtras*, say, what is summarized is no more than what is actually said there; if the summary seems imprecise and laconic, that is because (if we have done our work well) the *sūtra* has those features. It is characteristic of this tradition that the commentators spell out what they believe to be the intent of the authors of the *sūtras*; thus the reader should, if he is tracing the thought of the school on a given topic, be careful to read the summaries of the commentators in conjunction with that of the *sūtra*. The index provided is intended to enable the reader to identify all the passages summarized here which bear upon a

given topic, and he is advised to use it frequently. Sometimes, too, an author will comment on a topic in a part of his work unrelated to any logical development that the ordinary reader can discern; here again the reader may well miss this contribution unless he uses the index.

This volume has been in preparation for a number of years. Work on it begaan in the early 1960s. The editor wishes to thank the American Institute of Indian Studies for awarding him a Followship in 1963-64 which enabled him to visit prospective contributors and utilize the resources that India provided for furthering his work. Later on, in the summer of 1967, he received a Summer Session grant from the University of Minnesota which enabled him to use the Widener Library to locate out of the way secondary materials in preparing his introductory section. He is extremely grateful for both these opportunities.

1977 KARL H. POTTER

PART ONE

INTRODUCTION TO THE PHILOSOPHY OF NYĀYA-VAIŚEṢIKA

1

HISTORICAL RESUME

A full-scale philosophical system is generally expected to speak to problems in the following areas: metaphysics, epistemology, ethics and theory of value, logic, and philosophical method. The system of Indian philosophy known as Nyāya-Vaiśeṣika is such a full-scale system. Its contribution in each and every one of these areas is extensive, interesting, and usually of fundamental importance, as this introduction will attempt to show.

Metaphysics: Nyāya-Vaiśeṣika offers one of the most vigorous efforts at the construction of a substantialist, realist ontology that the world has ever seen. It provides an extended critique of event-ontologies and idealist metaphysics. It starts from a unique basis for ontology that incorporates several of the most recent Western insights into the question of how to defend realism most successfully. This ontology is "Platonistic" (it admits repeatable properties as Plato's did), realistic (it builds the world from "timeless" individuals as well as spatio-temporal points or events), but neither exclusively physicalistic nor phenomenalistic (it admits as basic individuals entities both directly known and inferred from scientific investigations).[1] Though the system has many quaint and archaic features from a modern point of view, as a philosophical base for accommodating scientific insights it has advantages: its authors developed an atomic theory, came to treat numbers very much in the spirit of modern mathematics, argued for a wave theory of sound transmission, and adapted an empiricist view of causality to their own uses.

Epistemology: Whereas in "modern" philosophy of the West the idealist critique of substance initiated by Berkeley has never been seriously challenged, the philosophers of the Nyāya-Vaiśeṣika school entered the controversy very early in its history against Buddhists who used Berkeleyan arguments. The resulting polemical battle may well represent the most important confrontation in philosophical

literature between so-called naive realism and the threats to it from idealist sources. Nyāya offers an account of perception which makes sense of our belief in an external world, yet promises to explain the fact of perceptual error without allowing that opening wedge of idealism, the admission that the mind creates certain parts of our world (and so why not all of it ?). The intricacy of this discussion between Nyāya and Buddhism brings out many fascinating and little understood aspects of the two views and what they require from their adherents.

Ethics and Theory of Value: The Nyāya-Vaiśeṣika system provides no startling new ideas over and beyond what is generally acceptable to Hindus, but it presents many carefully gauged arguments for the standard position, involving belief in transmigration, *karma*, and the possibility of liberation from future rebirths. It does not discuss questions of "ethical theory" as we understand that term in contemporary philosophy, since that was the business of others (Mīmāṃsakas) in the peculiar division of labor adopted by the ancient Indian thinkers. However, it endorses many of the general ethical attitudes of Hindu sages, questioning some in passing. On one point Nyāya is recognized by Hindus to have provided a definitive treatment, and this is on arguments for the existence of God.

Logic: Nyāya grew in part as a theory of philosophical debate, and among Hindus has been accepted as the system which specially studies the theory of arguments good and bad, in keeping with the division of labor principle alluded to in the previous paragraph. This does not mean that all Hindu philosophers accepted every point in the Nyāya account, but they certainly tended to look to Nyāya for definitive treatment and detailed discussions of intricate points. Nyāya had its great rival, however, in the logic developed by the Buddhists, and from this controversy developed one of the most comprehensive logical theories the world has known. Indian logic is never conceived as "formal" in the Western sense, but as an account of sane processes of reasoning it has few equals in the West for attention to detail.

Philosophical Method: Topics in this area are of the greatest current interest to philosophers in the Anglo-American tradition. Western philosophers sometimes seem to suppose that the "linguistic turn" in recent philosophy is a unique phenomenon, a turning-point in the history of philosophy. Perhaps it is, but if so it took place many centuries ago in India, where attention to grammar was commonplace by the 4th century B.C. The Nyāya theory of language, of meaning and the meaningfulness of words and sentences, shows

subtlety at the levels of syntax, semantics, and pragmatics. Nyāya also gave prolonged attention to defense of the empirical theory of validity and truth, opposing uncritical use of intuition and authoritarian appeals to revelation.

I. Who were these Philosophers ?

The present volume covers the first part of the history of the school of Nyāya-Vaiśeṣika, up until the beginning of so-called Navyanyāya in the *Tattvacintāmaṇi* of Gaṅgeśa. The reader will be able to find below summaries of what we know about these ancient philosophers. In this section I provide only a brief survey designed to give a nodding acquaintance with the most important of them so that they can be referred to as we proceed.

Gaṅgeśa flourished around A. D. 1350. This volume, then, deals with the system as it is presented and developed by some 55 authors who flourished prior to A. D. 1350, and who wrote some works of which we know or have heard. Many of these authors are practically nothing but names to us at present, and it is quite possible that we shall never learn more about them. Of the 82 works whose titles are known to us, only 51 are available now; the remaining ones, if we know anything about them, are known through fragmentary references taken from the works of philosophers who addressed polemics toward their views.[2]

Of the 50 works available in manuscript, 33 have been edited, some more than once, and 11 have been translated—wholly or partially—into English. In our treatment in this volume we have been able to provide summaries of the contents of 30 of these works. However, many of the works we have been unable to summarize are late commentaries of apparently less interest than some of the more original works that are better known.

As with several of the major Hindu philosophical systems, there is a tradition that looks back to a basic work in which the principles of the system were supposedly first enunciated. Nyāya and Vaiśeṣika were frequently listed as two systems,[3] partly perhaps because there are two sets of *sūtras* or aphorisms from which the two schools issued. It is uncertain whether these works were the work of one author or many, and it is probable that the development of the doctrines they summarize took place over several centuries. Of the two, the *Vaiśeṣikasūtras*, attributed to a probably fictitious person named "Kaṇāda" (perhaps "atom-eater") or "Ulūka" ("owl"), seem to represent the somewhat earlier stage of development. The date of Gautama or Akṣapāda ("eyes in his feet"), to whom the

Nyāyasūtras is attributed, is variously estimated from as early as the 6th century B.C. to the 2nd century A.D., the reason for the discrepancy being apparently that these *sūtras*, which achieved their present form around the time of Nāgārjuna and very possibly were fashioned by a chief architect of that period, are attributed to a traditional personage who must have lived very long ago, since he is known to the authors of Vedas and epics which date back many centuries before Christ. In any case, it seems likely that traditions which associate Kaṇāda with Banaras and Akṣapāda with Mithilā (North Bihar) may be accepted; Banaras was an ancient seat of learning, and many of the most influential later scholars of the system came from or were instructed in Mithilā.

The style of the *Vaiśeṣikasūtras* is laconic, and several parts of it are extremely difficult to interpret. Apparently later Vaiśeṣika authors found them difficult to understand also, as commentaries on these *sūtras* before Vādīndra (fl. 1225) have been lost and apparently more or less forgotten. The style of the *Nyāyasūtras*, by contrast, is somewhat more discursive, particularly in its third and fourth books, which has led some to guess that these are of later origin. However, it is several centuries before the first extant commentary on these *sūtras* was composed by Vātsyāyana or Pakṣilasvāmin (450-500), who is also known as "Drāmiḍa," suggesting his home was in the Deccan or the south of India. The *Nyāyabhāṣya*, as this commentary is known, became the basis for a great many subcommentaries in the next few centuries, and indeed on until the present. Whether Vātsyāyana accurately understood the meaning of the aphorisms on which he comments, it is his account of Nyāya which provides the springboard for many of the subsequent developments in the system.

This is not to suggest, however, that each new sub-commentator did not innovate. They certainly did so, for they were under constant pressure from a remarkable series of philosophical Buddhists, who selected Nyāya-Vaiśeṣika as their prime target in controversy. Scholars are still not absolutely certain about the relative chronology of this period, but it would appear that Buddhist logic of a serious sort began with Vasubandhu, who was more or less contemporaneous with Vātsyāyana; it was developed by Dignāga and Dharmakīrti, defended by Śāntarakṣita and Kamalaśīla, and refined by Ratnakīrti and Jñānaśrīmitra, and that this period found constant challenge and response between these philosophers and the contemporary Nyāya-Vaiśeṣika thinkers.

Part of the difficulty in piecing together the history of this period is due to the fact that the historian must command several languages

to be in full command of his materials. The original language of all these philosophers, Hindu and Buddhist, was classical Sanskrit, but for many of the Buddhist works the scholar must rely on Tibetan and/or Chinese versions, then reconstruct the original. It is probable that many as yet unknown works of these times are hidden away in Tibetan lamaseries, for occasional forays have brought to light a number of works previously unknown or only heard of, and there must be many more waiting to be discovered.

It is understandable that the Sanskrit works which Chinese monks translated and carried to China during these times were mainly Buddhist. Only two Hindu texts are known to have been translated; one of them is a treatise called *Daśapadārthaśāstra* by a Candramati (or Maticandra) who probably dates from about Vātsyāyana's time. His work is a version of the Vaiśeṣika system, and Frauwallner has argued that it was to refute his version that Praśastapāda wrote the work which is probably, even more than the *Vaiśeṣikasūtras*, the definitive treatise on Vaiśeṣika tenet.[4] Praśastapāda's work is called *Padārthadharmasaṃgraha*; while it alludes frequently to the *sūtras*, it can hardly be called a commentary on them, being an independent exposition of the fundamental tenets of the system with some detailed notes on certain topics. Scholars have argued whether Praśastapāda got his theory of inference from Dignāga the great Buddhist logician, or vice versa. It appears fairly certain that Praśastapāda and Dignāga were separated by no more than a century. Frauwallner dates Praśastapāda 500 to 600. Approximately contemporary with him is the Naiyāyika[5] Uddyotakara, whose commentary on *Nyāyabhāṣya* is the oldest now available. Uddyotakara clearly knows of Dignāga's views and attacks them. His *Nyāyavārttika* is philosophical work of great skill in dialectic; he was a consummate philosopher, although some modern scholars judge him too fond of sharp practices in argumentation.

At this point, unhappily, a 300-year gap sets in as far as available texts are concerned. From Buddhist sources, however, we know that the period was alive with philosophical controversy. Śāntarakṣita (ca. 700) refers to several old Naiyāyikas and considers some of them to be "pillars" of the system—notably Bhāvivikta, Aviddhakarṇa, and Śaṃkarasvāmin. Bhāvivikta may be prior to Uddyotakara, but the other two must fall within this 300-year gap. Fortunately, Śāntarakṣita and his commentator Kamalaśīla provide extensive references to the views of several of these philosophers.

The next available texts of the system come from a new direction—Kashmir. One of the most interaesting personalities among

our group of philosophers is Jayanta Bhaṭṭa (840-900), the author of a *Nyāyamañjarī* (and apparently a summary of it called *Nyāyakalikā*). Jayanta came from a Bengali family which had migrated to Kashmir several generations previously; he was an orthodox Brahmin who zealously defended the authority of the Vedas and saw the refutation of Buddhism as a religious cause. Yet he was no fanatic; he held that differences among religious sects are unimportant since they all seek the same end, namely liberation: all serious (i.e., Hindu?) faiths should be tolerated. Furthermore, Jayanta was capable of retaining his sense of humor under adversity: he tells us that as he writes *Nyāyamañjarī* he is being held prisoner in a cave and "I have beguiled my days here by this diversion of writing a book." The book turns out to be one of the acknowledged masterpieces of Sanskrit style, replete with light turns of phrase to offset the dry character of his subject matter. An "allrounder," Jayanta also wrote a play and was well trained in grammar and aesthetics.

Another Kashmiri Naiyāyika is Bhāsarvajña (860-920), the author of *Nyāyasāra* and a commentary on it called *Nyāyabhūṣaṇa*. The importance of the latter work for the development of the system is difficult to overemphasize. The *Nyāyasāra*, a brief and rather straightforward summary of Nyāya doctrines with a few remarkable features, is a standard text. The *Bhūṣaṇa*, however, is a long work that was thought to be lost until quite recently. The work has now been published, and its appearance is one of the most exciting events in the history of scholarship on Indian philosophy, for the doctrines in this work are apparently highly extraordinary and original. Later philosophers continually refer to the view of the "Bhūṣaṇakāra," or sometimes to a group of Naiyāyikas they call "ekadeśins"—meaning "a section of the school," apparently referring to the followers of the Bhūṣaṇakāra. Since many of the opinions of this section involve throwing out whole categories of time-honored importance within the system, it is understandable that Bhāsarvajña's views provide the basis for what is perhaps the only serious factional split within the system, one that lasts on and is referred to till the end of our period. Bhāsarvajña's theories may well turn out to have inspired some of the reforms currently attributed[6] to the Navya-naiyāyika Raghunātha Śiromaṇi, for instance.

This brings us to the 10th and 11th centuries, a period during which the Nyāya-Buddhism conflict reached its climax. Indeed, after this period Buddhism, for whatever reasons, is no longer a force in India. Naiyāyikas like to think this occurred because of the force of their polemics.

Three commentaries on Praśastapāda's classic Vaiśeṣika treatise were written during this period: the *Vyomavatī* of Vyomaśiva (900-960), the *Nyāyakandalī* of Śrīdhara (950-1000), and the *Kiraṇāvalī* of Udayana (1050-1100). These are lengthy, technical accounts defending complex ontology with exceptional subtlety. As for commentaries on the Nyāya literature, two authors stand out prominently. One is Vācaspati Miśra (900-980), a rather unique phenomenon in Indian philosophy, for he managed to compose treatises defending no less than five different and mutually incompatible systems of thought, treatises each of which has become a classic within its tradition. His contribution to Nyāya is a commentary on Uddyotakara's work: its title is *Nyāyavārttika Tātparyaṭīkā*.

On Vācaspati's work Udayana (1050-1100) composed still another commentary called *Pariśuddhi*. Many modern scholars believe that Udayana deserves the title of the greatest philosopher of the Nyāya-Vaiśeṣika school; he certainly stands as one of the most important figures. Besides *Kiraṇāvalī* and the *Pariśuddhi* he wrote five other works on Nyāya-Vaiśeṣika, and fortunately they are all preserved. Two of them are brief presentations of the basic definitions of Nyāya concepts (*Lakṣaṇāvalī* and *Lakṣaṇamālā*). A third is a development of the topic of how to win or lose a debate, a topic Gautama treated in the fifth book of his *sūtras*: Udayana gives it a full-scale treatment in his *Nyāyapariśiṣṭa*.

The other two works are perhaps Udayana's most important contributions. One of them is entitled *Ātmatattvaviveka*, "Discrimination of the Reality of the Self", a broadside against Buddhism from which, according to confirmed Naiyāyikas, Buddhism never recovered. This text badly needs translating; it may well be that its brand of analysis would prove more interesting to contemporary philosophers than any of the works so far available in all of Indian thought. In it Udayana not only gives arguments for the existence of the continuants the Naiyāyikas call "Selves"; he also considers and refutes fundamental principles of Buddhist analysis such as the principle that whatever is real has only momentary existence, the Buddhist denial of an external world independent of the mind, the very important Buddhist view that substances are nothing but bundles of qualities, and the Buddhist account of causation which is akin to that of Hume and Kant.

Udayana's *magnum opus*, according to many critics, is yet another work, entitled *Nyāyakusumāñjali*. This work contains by general acclaim the definitive treatment of the question of how to prove God's existence. It is still regularly studied in Indian curricula. As

Udayana develops the question of God's existence it turns out to involve most of the central topics of philosophy—e.g., the nature of successful argument (since arguments for God go beyond the reach of the senses), the nature of causation *re* the cosmological argument and the need for a creator, and so on.

So monumentally does Udayana loom in the history of Nyāya Vaiśeṣika that writers in this tradition over the next few generations are overshadowed by comparison. Indeed, some historians of the school hold that it is a mistake to break "old" and "new" Nyāya at Gaṅgeśa; Udayana, himself, pioneered the new techniques that Gaṅgeśa so expertly wielded. There is no doubt that much of the discussion during the period between the two— a period of about 250 years—was devoted to refining Udayana's definitions and analyses, though Udayana was by no means followed slavishly, and new ideas continued to be broached and older ones resuscitated.

Too, part of our difficulty is that this post-Udayana, pre-Gaṅgeśa period has not been studied nearly as extensively as that prior to Udayana. One or two short handbooks have been translated: that of Śivāditya called *Saptapadārthī* presents a succinct account of Vaiśeṣika, useful for students who study in India by rote methods, and Keśava Miśra's *Tarkabhāṣā* is a similarly useful handbook for students of Nyāya. Of the more original works of this period none are available in translation. One is Śrīvallabha's (or simply Vallabha's) *Nyāyalīlāvatī*, written during the first part of the 12th century. Another is the *Mahāvidyāviḍambana* of Bhaṭṭa Vādīndra (1175-1225), which contributes importantly to the develodment of logical theory by exhaustively and critically studying the question of that sort of argument called *kevalānvayī*, where what is being proved is the existence of universal properties or things satisfying them. As we approach Gaṅgeśa's time a number of works are written, none of them well-known to scholarship, which may well contain much of what Gaṅgeśa systematizes. Notable in this group are the *Nyāyaratna* of Maṇikaṇṭha Miśra (1275-1325) and the *Nyāyasiddhāntadīpa* of Śaśadhara (1275-1325).

For ease of reference the table on the next page summarizes the names of Nyāya-Vaiśeṣika authors, their works, dates, and places of origin where known.

T—Translated
E—Not translated, but has been published
M—Not published, but manuscript(s) available

NYĀYA-VAIŚEṢIKA BEFORE GANGEŚA—CHECK LIST OF AUTHORS AND WORKS

	Name	*Date*	*Place*	*Works*
1.	Kaṇāḍa	?	Banaras?	Vaiśeṣikasūtras (T)
2.	Gautama	?	Mithilā, then Kathiāwār?	Nyāyasūtras (T)
3.	Vākyakāra	?	?	Vaiśeṣikasūtravākya
4.	Kaṭandikāra	?	?	Vaiśeṣikasūtravākya-kaṭandī
5.	Vātsyāyana	450-500 (Oberhammer)	Deccan?	Nyāyabhāṣya (T)
6.	Candramati	450-500 (Frauwallner)	?	Daśapadārthaśāstra (T)
7.	Bhāvivikta	520-580 (Frauwallner)	?	Nyāyabhāṣyaṭīkā
8.	Praśastapāda	550-600 (Frauwallner)	?	Padārthadharmasaṃgraha (T)
8a.	(Praśastamati)			Ṭīkā on Vaiśeṣikasūtras, Vākya
9.	Uddyotakāra	550-610	Srughna near Thāneśvar	Nyāyavārttika (T) and Bhāṣya
10.	Ātreya	?	?	Rāvaṇabhāṣya on Vaiśeṣikasūtras
11.	Prīticandra	600-650	?	?
12.	Aviddhakarṇa	620-700	?	Nyāyabhāṣyaṭīkā
13.	Śaṃkara (svāmin)	675-725 (before Śāntarakṣita)	?	Sthirasiddhi
14.	Viśvarūpa	800-850 (Steinkellner)	?	Nyāyabhāṣyaṭīkā
15.	Dhairyarāśī	800-850 (Steinkellner)	?	?
16.	Jayanta Bhaṭṭa	840-900 (Steinkellner)	Kashmir	Nyāyamañjarī (E: partially T) Nyāyakalikā (?) (E) (Āgamaḍambara)
17.	Nyāyaratnakāra	840-900 (Kavirāj)	Kashmir?	Nyāyaratna
18.	Bhāsarvajña	860-920 (Suali)	Kashmir	Nyāyasāra (E) Nyāyabhūṣaṇa (E) (Gaṇakārikās)
19.	Trilocana	(870-930)	Karnāṭa country?	Nyāyaprakīrṇaka Nyāyamañjarī Nyāyabhāṣyaṭīkā

	Name	*Date*	*Place*	*Works*
20.	Sānātanī	900-960? (D.C.Bhattacharya)	Bengal	C on Nyāyasūtras (?)
21.	Vyomaśiva	900-960 (V. Varadachari)	"from South" "Kashmir" (D.R. Sastri)	Vyomavatī on Padārthasaṃgraha (E)
22.	Vācaspati Miśra I	900-980 (Thakur)	Mithilā	Nyāyavārttikatātparyaṭīkā (E) Nyāyasūcīnibandha (E) C on Nyāyaratna
23.	Adhyāyana	950-1000? (Steinkellner)	?	Ruciṭīkā on Nyāyabhāṣya
24.	Vittoka	950-1000? (Steinkellner)	?	?
25.	Narasiṃha	950-1000? (Steinkellner)	?	?
26.	Śrīdhara	950-1000	Bengal	Nyāyakandalī on Padārthadharmasaṃgraha (T)
27.	Śrīvatsa	1000-1050 (D.C.Bhattacharya)	Mithilā (?)	?
28.	Aniruddha	1025-1075? (Jetly)	?	Vivaraṇapañjikā on NS, NBh, NV and NVT (M)
29.	Udayana	1050-1100 (Frauwallner)	Mithilā	Lakṣaṇāvalī (E) Lakṣaṇamālā (E) Ātmatattvaviveka (E), Nyāyakusumāñjali (partially T: E) Nyāyapariśiṣṭa (E) Nyāyavārttikatātparyaṭīkāpariśuddhi (~~partially~~ fully E) Kiraṇāvalī on Padārthadharmasaṃgraha (E)
30.	Aparārkadeva	1075-1125 (Subrahmanya Sastri)	Konkan	Nyāyamuktāvalī on Nyāyasāra (E)
31.	Śrīkaṇṭha	1075-1125 (D.C.Bhattacharya)	?	Pañcaprasthānyāyatarka on NS, NBh, NV, NVT, and NVTP (M)
32.	Vṛttikāra	1100-1150 (Thakur)	Bengal	Vaiśeṣikasūtravṛtti (M)
33.	(Śrī) Vallabha	1100-1150 (D.C.Bhattacharya)	Mithilā	Nyāyalīlāvatī (E)

	Name	Date	Place	Works
34.	Varadarāja	1100-1150 (V. Varadachari)	? Kashmir or Āndhra	Tārkikarakṣā (E) Sārasaṃgraha on Tārkikarakṣā (E) Nyāyakusumāñjali-bodhanī (E) C on Kiraṇāvalī (M) ? Nyāyadīpikā (M)
35.	Śivāditya	1100-1150 (D.C.Bhattacharya)	?	Saptapadārthī (T) Lakṣaṇamālā Hetukhaṇḍana Upādhivārttika Arthāpattivārttika Nyāyamālā (E)
36.	Vādīndra	1175-1225 (D.C.Bhattacharya)	Daulatabad	Mahāvidyāviḍambana (E) Kiraṇāvalīdarpaṇa (partially E) Kaṇādasūtranibandha (M) Vaiśeṣikasūtravyākhyā (E) (Summary of previous item) ? C on Lakṣaṇāvalī
37.	Bhaṭṭa Rāghava	1200-1250 (D.C.Bhattacharya)	Daulatabad	Nyāyasāravicāra (M)
38.	Divākara	1200-1250 (D.C.Bhattacharya)	Mithilā	Nyāyakusumāñjali-parimala (M) Nibandhoddyota (on Pariśuddhi?) (partially M)
39.	Vādi Vāgīśvara	"before Ānandānubhava" (E.P. Radhakrishnan)		Mānamanohara (M) Nyāyalakṣmīvilāsa
40.	Nārāyaṇa Sarvajña	1225-1275 (D.C.Bhattacharya)	?	?
41.	Keśava Miśra	1225-1275 (D.C.Bhattacharya)	Mithilā	Tarkabhāṣā (T)
42.	Ānandānubhava	1230-1280		Nyāyakālanidhi on Nyāyasāra (E) (Advaita works)
43.	Prabhākaropādhyāya	1230-1280 (D.C.Bhattacharya)	Mithilā	?
44.	Abhayatilaka	1275-1325 (Jetly)	?	Nyāyālaṃkāra on NBh, NV, NVT and NVTP (M)
45.	Sondaḍopādhyāya	1275-1325 (D.C.Bhattacharya)	Mithilā	?

	Name	Date	Place	Works
46.	Maṇikaṇṭha Miśra	1275-1325 (D.C.Bhattacharya)	Mithilā	Nyāyaratna (E) Nyāyacintāmaṇi
47.	Śaśadhara	1275-1325 (D.C.Bhattacharya)	Mithilā	Nyāyasiddhāntadīpa (E) Nyāyamīmāṃsāprakaraṇa (M) Nyāyanaya (M) Śaśadharamālā (M)
48.	Taraṇi Miśra	1300-1350 (D.C.Bhattacharya)	?	Ratnakośa (M)
49.	Jagadguru	"before Gaṅgeśa" (D.C.Bhattacharya)		C on Nyāyakusumāñjali
50.	Nyāyabhāskarakāra	"before Gaṅgeśa" (D.C.Bhattacharya)		Nyāyabhāskara
51.	Ravīśvara	"before Gaṅgeśa" (D.C.Bhattacharya)		?
	Questionable, or dates unknown			
52.	?			Bhāradvājavṛtti on Vaiśeṣikasūtras
53.	Viṣṇu Miśra			
54.	Vidyādharamiśra			
55.	Śrīkara			
56.	Candrānanda			Vaiśeṣikasūtravṛtti (E)

II. *Nyāya and Vaiśeṣika: Two Schools or One ?*

Although there are two sets of *sūtras*, there is no doubt that each of the two schools accepted a great deal of what the other taught. The extent to which, for example, Uddyotakara utilized Vaiśeṣika doctrines in his Nyāya commentary has been shown to be of no mean proportion. At least one author appeals explicitly to the principle that if of the two sister schools one does not speak against the other's view it should be accepted that the two agree on the point.[7]

In the light of this it seems unnecessary to speculate about just when "syncretism" between the two schools occurred. One scholar has suggested that Śivāditya's *Saptapadārthī* is the first syncretic work, since Śivāditya attempts "to combine the two systems...in one manual by a symmetrical representation and arrangement".[8] In this special sense later handbooks such as *Tārkikarakṣā* and *Tarkabhāṣā* may also be called "syncretic." However, apart from this stylistic point, Nyāya and Vaiśeṣika have from the first considered themselves as mutually supportive, Nyāya specializing in epistemology and methodology, Vaiśeṣika in metaphysics.

There were occasional points of disagreement between the philosophers of the two schools, however. Many of these were quite minor, and others are on points where even within each school there

is by no means unanimity. Umesh Mishra[9] has provided a useful list of these points of disagreement. Despite this, there seems no reason whatsoever not to treat Nyāya-Vaiśeṣika philosophers together under the same cover; on practically all fundamental questions they agree in opposing the various other systems of Indian thought.

III. Nyāya-Vaiśeṣika and the Other Systems of Indian Philosophy

Besides the Buddhists, the Naiyāyikas jousted on occasion with philosophers representing several of the Hindu systems, notably the Vaiyākaraṇas, Mīmāṃsakas, Sāṃkhyas, and Advaita Vedāntins. There are very few references to the Jains in the works of our period; other varieties of Vedānta did not arise until the close of our period or even after that, though in the subsequent period of Navya-nyāya there was controversy with logicians of the Dvaita school of Madhva, for example.

Vaiyākaraṇas: These philosophers developed the theory of meaning in early times. Scholars are now working on the views of these Grammarians, and we may be confident that the results of their researches will yield many insights into the origins of some of the speculations of the systematic schools such as Nyāya-Vaiśeṣika. There is reason to believe that many of the typical tendencies in Hindu thought had their antecedents in grammatical theories, though the influence went more or less unnoticed by the philosophers themselves. An occasionally more insightful philosopher such as Jayanta, however, expert in grammar as well as his own philosophical tradition, provides us with much material for deeper analyses of the sources of Nyāya views on meaning and truth. We shall deal with some of these views below.

Mīmāṃsakas: As mentioned above, Pūrvamīmāṃsā had as its business in earliest times what may be likened to ethical theory, namely the exegesis of the scriptural injunctions which constituted the moral precepts accepted by the community and enshrined in the Vedas. In the course of this work the Mīmāṃsakas also developed characteristic views on meaning, validity, and truth, sometimes at odds with those of the Grammarians. Of particular importance to Nyāya was their theory about the nature of sound, which the Mīmāṃsā views as an eternal substance manifesting itself here and there as words and noises. Utilizing this theory, they were able to defend the eternity and authority of the Vedas. They were roundly attacked by Nyāya-Vaiśesika for this view, and the number of arguments that can be culled from the literature for and against the

eternity of sound seems endless. This had its importance for logical theory, for in the heat of this battle both sides were forced continually to re-examine the nature of their arguments, and one hears that many debates were held, no doubt regulated by the rules of debate which we find promulgated in one form or another in such books as the *Nyāyasūtras*.

Mīmāṃsā does not really flower into a philosophical system in the full sense until the time of Kumārila (620-680) and Prabhākara (650-720), that is, until approximately the time of the 300-year gap we referred to in Nyāya-Vaiśeṣika literature. In studying the polemics between Buddhism and its realistic opponents during this gap, scholars have been able to replace the lacking Nyāya works with Kumārila's *Ślokavārttika*, for in it the author sets out many of the characteristic Nyāya doctrines and arguments. But there are important differences, particularly in epistemology, separating Nyāya and Kumārila. Much the same sort of thing can be said about the views of Prabhākara, which in some respects might be held to provide a *via media* between Buddhism and Nyāya. Epistemologically Prabhākara is if anything even more uncompromisingly realistic than Nyāya-Vaiśeṣika; but ontologically he shows tendencies to nominalism which did not fit with Nyāya predilections.

Sāṃkhya: This system is one of the oldest among the Hindu schools. In some form or other, Sāṃkhya appears to date back several centuries before Christ, and many scholars have suggested affinities between early Sāṃkhya and Buddhism. The Mahābhārata, probably the older of the two great Indian epics, presents Sāṃkhya philosophy in many places, notably in the mouth of Kṛṣṇa in the *Bhagavadgītā*. It is not always easy to identify the source of opponents' arguments in the early Nyāya-Vaiśeṣika texts, but clearly Vātsyāyana addresses himself to Sāṃkhya arguments in several places and implies that the *Nyāyasūtras* also were directed toward that quarter. The most important controversy between Nyāya-Vaiśeṣika and Sāṃkhya is over the nature of causation, a topic which can be viewed as crucial to all other problems of metaphysics and epistemology. The Sāṃkhyas were the champions of the view that the effect exists in potency already in its cause, which merely needs to be nudged in order to make the effect manifest to observation. The Sāṃkhya, to be sure, conceived this version of change to be a process which takes place in the real world external to our minds; yet merely to describe the view serves to suggest why the Naiyāyikas looked askance at it, for it suggests that an effect is so because we, the observers, are aware of it when previously we were

not. Nyāya-Vaiśeṣika proposes instead a view of causation according to which the effect does not exist until the moment of its origination. This view has more affinity with Buddhism than with most of the other Hindu systems, for the Buddhists believed that the effect came into being after the cause. However, the crucial difference still remains that the Naiyāyika believes in real continuants, while the Buddhist explains continuants away as mere appearance; in reality all there is for Buddhists are momentary events.

It appears also that the Sāṃkhya thinkers were among the first to propose systematic techniques which warrant the title of "logic," and it was their logical theories which were prevalent in the period prior to the compilation of the *Nyāyasūtras*.[10] Frauwallner thinks that some of the puzzling aspects of the classification of types of inference are cleared up by referring to this old Sāṃkhya logic, which seems to have remained prominent until the 5th century or so.

Rather little is heard of Sāṃkhya in our texts during the later centuries. Sāṃkhya seems to have had few defenders. Vācaspati Miśra wrote a commentary on the *Sāṃkhyakārikās* in the 10th century, but after that until the so-called *Sāṃkhyasūtras* composed apparently in the 13th or 14th century there is practically speaking no Sāṃkhya activity at all. It would seem that many of the Sāṃkhya ideas were absorbed during this period into the thought of the Vedānta schools.

Advaita Vedānta: Considering the importance of this school in recent times, when it has become so prevalent as to be frequently mistaken for the only kind of Indian philosophy extant, it is interesting to notice how long it takes this school to catch the attention of the Nyāya writers. We find an occasional reference to the Advaitin Maṇḍana Miśra in works of the 9th and 10th century, but I have found no reference in the Nyāya-Vaiśesika literature of that period to Śaṃkarācārya, acclaimed nowadays as India's greatest philosophical mind. In fact, it is not until the time of Udayana that Advaita clearly begins to call for attention on the part of the Naiyāyikas. There is a tradition that Udayana once defeated in debate one Śrīhīra, whose son was Śrīharṣa, the author of several famous literary works. Śrīharṣa, who may be held to have lived around 1075-1125, avenged his father by writing a barbed critique of Nyāya called *Khaṇḍanakhaṇḍakhādya*. This work espouses Advaita, albeit a rather negative version of Advaitic teachings more akin to that of Śaṃkara's pupil Sureśvara than to the more positive teachings of Maṇḍana or Padmapāda, say. Several Naiyāyikas were moved to write answers to Śrīharṣa's polemic. It is quite unusual in the history of

Indian thought to find members of one school writing commentaries on a text of another school with an eye to refuting its arguments, Refutations of other schools are the business of the day in Indian thought, but one normally appends one's arguments to a text which sets forth the truth as one sees it, introducing and confuting opponents who dare to challenge the master. A *Ṭīkā* by the Divākara listed above was the only one of these anti-Śrīharṣa commentaries that we know to have been written on the *Khaṇḍanakhaṇḍakhādya* prior to Gaṅgeśa, but quite a few Navya-naiyāyikas also wrote such commentaries. And in any case after the time of Śrīharṣa, Nyāya-Vaiśeṣika could not ignore Advaita, though even then one remains surprised at the infrequency with which Advaita views are attacked. It is perhaps noteworthy that at least one of the writers of the post-Udayana period, Ānandānubhava, was apparently an Advaitin who dabbled in logic; the bulk of his writings were in Vedānta, but he wrote at least one occasional commentary on a Nyāya text. Does this presage the modern reconciling tenor of Vedāntins, who tend to see other systems as partial approximations to the full monistic insight, or as necessary stages in a dialectic leading to Advaitic enlightenment ?

Jainism: References to Jain views in the classical Nyāya-Vaiśeṣika texts are very rare. Jain writers did on occasion write on Nyāya topics during the latter part of our period. One of these was Abhayatilaka (1275-1325); there were others later on in the post-Gaṅgeśa period.

Cārvāka: It is clear that from the time of the Buddha and Mahāvīra onward for many centuries there were skeptics who found the pretensions of Brahminical philosophy with its faith in spiritual values a belief without substance. Just about all the works of these "materialists," as they are usually called by Indian writers, have been lost or destroyed. Yet, the frequency with which our writers address themselves to skeptical doubts indicates their need to justify each plank in their philosophy not only to believers, Hindus like themselves, but to nonbelievers as well.

IV. Was there any Influence from or to Western Philosophy

This question was asked frequently by scholars of a number of decades back who were struck by what they considered strong affinities between Nyāya and Aristotelian logic. Since it has becomr clear that these affinities are the result of inadequate information or reflection, the quest for evidence of mutual influence has died away. The truth is that (as far as philosophical ideas are concerned)

there is very little, if any, evidence of direct borrowing by Indians from the West until near-contemporary times. As for the influence of Indian thought on the West, there is no doubt that Neoplatonism owed a good deal to Oriental mysticism, and other relationships can be attested to throughout the centuries.

Restricting ourselves to the field of logic, Frenkian[11] has found specific influences of Indian logical speculations on Greek thought as early as the second half of the 4th century B.C. "Firstly, the image of the coiled rope taken for a snake was used as illustration of the doctrine of Carneades in the 2nd century B.C. Secondly, the quadrilemma seems to have been employed by Pyrrhon, the founder of the Greek skeptical school of philosophy in earlier times, in the 2nd half of the 4th century B.C."[12] He also points out that Sextus Empiricus, though he alone, uses as example of inference the Indian stock argument about there being fire on the mountain because there is smoke. The first two of these characteristically Indian allusions—the rope-snake illusion and the quadrilemma—are more Buddhist than Hindu, at least in those early days of which Frenkian speaks. But the smoke-fire illustration of inference must have been well-known in proto-Nyāya before the time of Sextus Empiricus (2nd to 3rd century A.D.), though it is of course possible that Sextus thought it up on his own. All in all, we must be sober in our judgments on this exciting possibility of mutual East-West influence; repeated efforts by reputable scholars have found precious little to show any conscious borrowing.

2

THEORY OF VALUE

Philosophical system building in India is almost invariably connected by its creators with the gaining of perfection, which has various names in Indian thought but which we shall here call regularly "liberation." One topic reviewed below is the extent to which this commitment to liberation is mere windowdressing in the case of Nyāya-Vaiśeṣika, which some critics view as studying logic and debate for their own sake. We shall have occasion to look at the religious affiliations of our philosophers in this connection, and to attempt to gauge the relevance of their religious convictions to their philosophy. Then, after summarily reviewing the general Hindu lore that lies behind all Indian thought, we shall turn to consider particular Nyāya-Vaiśeṣika theories about the nature of liberation and the other characteristic topics in the Hindu theory of value such as *karma* and transmigration, the abilities of yogis and sages, the question of human versus divine freedom, and the relative worth of the various paths to liberation.

I. What is the Place of Spiritual Values in Nyāya-Vaiśeṣika ?

The answer to this question has implications not only for our understanding of the philosophy of the system but also for assessing its historical origins. Generally speaking, Western scholars have tended to discount the reference in the texts to liberation, while Indian scholars have tended to take them seriously. Thus Faddegon writes that the Vaiśeṣika "owes its origin to a purely theoretical attitude of mind and not to that craze for liberation which dominates nearly all forms of Indian thought"[1]; but Gopinath Kaviraj suggests that even for the Nyāya-Vaiśeṣikas "the external world...has only a moral value....Hence, the same moral end...which occasions the rise of subjective phenomena acts also as a motive for the origin of the objective order."[2] These two quotations represent extreme views;

most scholars adopt positions somewhere between. Not all Western scholars are as skeptical as Faddegon about the moral import of the system: Ingalls writes, "It has often seemed to me that the teachings of the early Nyāya might better be called a philosophy of man than an exposition of logic."[3] And not all Indians have accepted the claims of the classical writers connecting *mokṣa* with philosophy; e.g., Daya Krishna writes: "...many schools of philosophy have literally nothing to do with *mokṣa*. Nyāya, Vaiśeṣika, and Mīmāṃsā would predominantly come within this group."[4]

It is important, I believe, to separate the historical question here from the methodological one. As for the latter, I think there is very little reason to accept either Faddegon's or Kaviraj's extreme position. There is no question about the sincerity of moral conviction implicit in the writings of the authors we are concerned with. Doubts on this score might only begin to be raised as we approach the close of the period, where there is a tendency to write short monographs on limited topics in logic and methodology, topics which can be handled without any reference to ultimate purposes. As we shall see below, it is possible that the earliest philosophers of this school were not monotheists, but it is only a Western prejudice which draws from this the conclusion that they were amoral or uninterested in spiritual values. They have a great deal to say about liberation, *karma*, and life, and they quite frequently make rather explicit the connections they assume hold between their epistemological and ontological speculations and the quest for perfection.

On the other hand, I find nothing to warrant Kaviraj's view that in some basic sense Nyāya is a kind of idealism. These writers are explicitly concerned to controvert idealism in all quarters. It is only if we view philosophy as subordinate to religion that we might come to a view such as Kaviraj's. But there is no evidence that these philosophers took such a view of philosophy. The question of just what the relation is between philosophical investigations and the proper way to live is one that we shall raise below, where we shall see that while the Naiyāyikas did not equate the good life with the reflective life, they did feel that one would not find his appropriate path eventually culminating in liberation without understanding the truths about reality enshrined in Nyāya-Vaiśesika doctrine, and without mastering the methods of investigation taught in the system.

The historical question is much more difficult to settle. The most recent and thorough review of it has been made by Oberhammer.[5] He traces the origins of Nyāya to an old "*vāda* tradition," a

theory about how to carry on and win in discussion, which he feels probably existed independently of *ātmavidyā*, or theory of the self and its perfection, in the days prior to Vātsyāyana. It was Vātsyāyana, he argues, who made special efforts to wed these two disparate strands which only sit uneasily side by side in the *Nyāyasūtras*. For example, in the old theory of discussion the topic of the proper instruments of true knowledge (*pramāṇa*) has only a secondary importance, since though to win a debate one needs to know which arguments carry weight and which do not, the place to look to decide which arguments are persuasive is to the judge, not to theories about the nature of the world or spiritual values. If one's intent is merely to evaluate the worth of arguments, then one need not worry about whether they are productive of true judgments. Thus Nāgārjuna, engaged in a negative dialectical refutation of all positive philosophies, feels no need to limit his reasoning to arguments involving acceptable instruments of true knowledge. The Naiyāyika, on the other hand, insofar as he does plan to use argument to establish positive propositions about how things are, must appeal to a theory about which kinds of evidence are trustworthy.

Vātsyāyana identifies what he calls "the science of argument" (*nyāyavidyā*) with an ancient science called *ānvikṣikī*, referred to by Kautilya in the *Arthaśāstra*, a famous tract of perhaps the 2nd century B.C. apparently written by a royal minister for the edification of princes. In this work *ānvīkṣikī* is mentioned as an essential part of the curriculum of the young ruler, and scholars have speculated as to what the term means and what sort of an intellectual climate its mention implies. The term may be translated, perhaps, as "investigation"; it occurs elsewhere in Sanskrit literature, where it sometimes means the study of the Vedas. Hacker[6] thinks it is misleading to construe it as referring to philosophy, and suspects that Kautilya had in mind that princes should be trained to argue intelligently, and that by referring to the logical aspects of what was taught by philosophers at that time they would find a guide for what they needed. It is possible that the reference is to a form of the Nyāya school, or Vaiśeṣika, but more likely it refers primarily to some form of that early Sāṃkhya logic which we had occasion to mention above. In any case, Vātsyāyana tries to identify this *ānvīkṣikī* with the logical side of Nyāya-Vaiśeṣika, and according to Oberhammer[7] he is the first to make extended efforts to show that Nyāya is also a science of the self, that is, a means to that self-knowledge which is propaedeutic to liberation. Vātsyāyana does seem to make extended efforts to apply notions probably drawn from the yoga system of Patañjali to

the topic of the things one must know (*prameya*). But D. N. Shastri[8] sees no evidence that *ānvīkṣikī* did not always include the science of the self, despite the analyses of Oberhammer and of Jacobi[9] before him.

These matters bear upon several others: one is the makeup of the *Nyāyasūtras*. Another is the attitude of early Indians toward logic. Vidyabhusana was of the opinion that logicians were looked on with disfavor in early times because then "Nyāya was pure logic" and "had no relation with the topics of the Vedic Saṃhitā and Brāhmana."[10] However, there were other branches of learning which were unconnected with the Vedas—e.g., grammar—and which so far as we can tell flourished in the same period.

II. Religious Affiliations of Nyāya-Vaiśeṣika

The connection of this question with the previous one is probably more apparent to a Westerner than to an Indian. One does not have to believe in one God to accept moral and spiritual values in India, though not all Indians in later times would assent to this statement.

Tradition has it that Naiyāyikas are Śaivite and Vaiśeṣikas are Pāśupatas. The *Yuktidīpikā*, a Sāṃkhya treatise written around A.D. 550, tells us that the Pāśupatas introduced God into the Vaiśeṣika system, going on to suggest that God has no business being there.[11] Pāśupata is a sect of Śaivas (worshippers of Śiva) who worship him as "Lord of Beasts" (*paśupati*). They are usually traced back to the teacher Lakulīśa (A.D. 100), reputedly a native of Gujarat, who established a line of teachers who taught around Mathurā in the Ganges plain. It was an extraordinary sect, whose practices included bathing in ashes, honoring the god by dancing, laughing, and lowing like a bull, and it advised its more advanced devotees to go about behaving like madmen and to perform acts which the populace generally looked upon as improper. Ingalls has compared them with the Greek Cynics.[12]

However, as is the way with some of the Indian traditions, it is difficult to find much evidence that the Vaiśeṣika philosophers were Pāśupatas, though there is evidence that some of the Naiyāyikas were, all of which may tell once again in favor of the essential identity of the two schools. Uddyotakara is sometimes referred to as Pāśupatācārya, and Bhāsarvajña (whose version of Nyāya is closer to Sāmkhya than to Vaiśeṣika) wrote a work called *Gaṇakārikā* expounding Pāśupata tenets.

There is plenty of evidence, on the other hand, that Naiyāyikas are generally worshippers of Śiva rather than Viṣṇu. As far as I know there is no evidence to suggest that any of our philosophers up to near the end of our period were Vaiṣṇavites. And several writers are of the opinion that the religious sources of Nyāya and Vaiśeṣika were more or less the same. Kaviraj writes that the source of bondage between the schools is through "the original Śivāgama or its philosophical counterpart, the so-called Īśvaravāda, out of which not only the present form of Yoga and Nyāya, but the later Śaiva philosophies also may have well arisen and gradually crystallized themselves into independent systems."[13] This *īśvaravāda* or doctrine of a supreme God Kaviraj takes as referring to Śaivism rather than Vaiṣṇavism: Īśvara is originally a name of Śiva, while the name for Viṣṇu would be Puruṣottama, he explains. Bhandarkar[14] has found an inscription at Kedāreśvara temple at Belgami in Mysore State which suggests that Nyāya was looked upon as a specific Maheśvara sect. He also reminds us of a passage in the *Vāyupurāṇa*, probably dating from the 4th century, in which it is said that Lakulīśa had three pupils : Akṣapāda, Kaṇāda, and Vatsa. This leads Bhandarkar to suggest that the schools were the same from the start.

This is all very well, but we must consider also the fact that both sets of *sūtras* are very chary of reference to God. The author of the *Yuktidīpikā* can only find one passage in the *Vaiśeṣikasūtras* that might conceivably be construed as referring to God, and it seems certain that it was not intended to.[15] And there has been considerable speculation about the section in the fourth book of the *Nyāyasūtras* which refers to God—it is as possible that it attacks as that it defends monotheism.[16] By the time of Praśastapāda, however, Nyāya-Vaiśeṣika was thoroughly monotheistic: the *Yuktidīpikā* thinks it was worked over by Pāśupatas and molded into the form Praśastapāda presents.[17]

Whatever the truth be about the view of the authors of the two sets of *sūtras* on God, it is likely that they accepted, along with the rest of the Hindus, the belief in the gods which was second nature to everyone in those times. There is no reason why a philosopher should refer to the gods, except perhaps in his invocation, unless he has particular roles in mind which the gods, or God, must play in his philosophy. In the case of Nyāya-Vaiśeṣika God's role turns out to be that of a general condition of all action, and in particular the agent who sets the world in motion at the beginning of each cycle by bringing about the first collisions of atoms. The technical aspects of God's functioning presumably did not occur to the earliest

formulators of these theories, engaged in developing the fundamentals of the mechanics of atomism and causation, and it is only when they discovered that they needed additional agents besides humans that they were moved to postulate a super-self, God, who can fulfill the requirements.

So special is the role that God plays in Nyāya-Vaiśeṣika that other monotheistically minded philosophers in India find the Nyāya conception of Him a thin one indeed. Yet, the origins of other systematic philosophies of the same period show more or less the same phenomenon. The *Sāṃkhyakārikās* of Īśvarakṛṣṇa, a 4th-century work, shows no monotheistic inclinations, and Pūrvamīmāṃsā explicitly denied to God the role of creator of the Vedas. Mahāyāna Buddhism had its Bodhisattvas, but their importance increases in much later stages of the Buddhist religion, paralleling similar developments in Hinduism and extending into the form it takes in Tibet, China, and Japan. The Jains also had their sages, the Tīrthaṃkaras, but believed in no supreme deity. Monotheists represented only one philosophical theory among many at that time, as far as evidence shows.

It is, then, a later prejudice which connects belief in one supreme God with sincerity of spiritual convictions, or in the case of Western critics it reflects an imposition of foreign assumptions.

III. The Connection between Philosophy and Liberation

There are nevertheless those who doubt that Indian philosophy, and notably Nyāya-Vaiśeṣika, really has anything to do with the search for liberation, despite the many statements of the philosophers themselves that there is a connection. Part of the difficulty here lies in conceiving accurately what the connection can be between theoretical pursuits and practical ones. Daya Krishna[18] notes rightly that speculation is rarely viewed as *constituting* the path to freedom, and concludes that it therefore has nothing to do with freedom. He also points out that writers in all sorts of fields, not only philosophers, attempt to link their writings to the search for liberation, but concludes that, although it is fashionable to pay lipservice to this goal, in fact this is one of those traditions that live by common assent but have no substance whatever. I think it is not necessary to answer these doubts in detail immediately; we may allow the true picture to emerge from the writings themselves and the summary of them which I shall attempt in the remainder of this chapter. The first part of Daya's argument must be met by showing what

the path to liberation is according to Nyāya-Vaiśeṣika, and how theoretical speculation gets involved in the life of the freedom seeker. This is the burden of what is immediately to follow. As for the charge that belief in *mokṣa* is a matter of lip service without sincere conviction, I think it will become apparent from the nature of the arguments used by Naiyāyikas, if not from the proportional attention they pay to the topic, that liberation is always on their minds even if not always uppermost in the question of the moment.

IV. The Hindu Theory of Value: Important Concepts

The Nyāya-Vaiśeṣika theory of value must be considered as a version of the more general theory which is accepted in a general way by all varieties of "Hinduism"—a term which is difficult to define but serves to distinguish the vast majority of Indian religious sects and cults from—especially—Buddhism, Jainism, and foreign religions such as Islam and Christianity. Since any number of works set forth the fundamental tenets of Hinduism in considerable detail[19] it will not be necessary to spend much time here on this, but merely to remind the reader that in Nyāya-Vaiśeṣika he is dealing with a system squarely within traditional assumptions.

A. *Aspects of the Good Life*: Hindu texts set forth several "aims of life" (*artha*) the relationships among which are variously explained by different authorities. The aims of life are usually said to be four: *artha* or material prosperity, *kāma* or affective gratification, *dharma* or right conduct, and *mokṣa* or liberation. The order in which these four are listed varies; however, liberation is universally accepted as the highest end by those who accept it at all. In ancient times Pūrvamīmāṃsā did not accept liberation as an end, preaching that the ultimate purpose in life was to attain heaven through performance of acts prescribed in Vedic injunctions and avoidance of those acts proscribed by the same sacred scriptures. In later times virtually all Hindus accepted the supremacy of liberation to *dharma*. Each of the four "aims" has a literature which is traditionally attached to it : for *artha*, the *Arthaśāstra* of Kauṭilya (referred to above); for *kāma*, the *Kāmasūtras* of Vātsyāyana (probably not our Pakṣilasvāmin) and other handbooks of erotics and aestheticism; for *dharma*, the various *Dharmaśāstras*, notably that entitled "The Laws of Manu"; and for *mokṣa*, the philosophical literature, particularly that part of it which advises methods for seeking and gaining liberation. Many handbooks devoted to one of the other "aims" indicate that attention to their teachings will aid one in achieving liberation; this

suggests that the general Hindu view is that liberation transcends the others without implying that commitment to them will work against eventual self-perfection.

B. *Karma and Saṃsāra; Preexistence and Transmigration*: *Mokṣa*, the supreme end of life, is liberation from the bondage of *karma*, from the circle of birth and rebirth (*saṃsāra*). This is the minimal meaning of *mokṣa*; we shall see below how Nyāya-Vaiśeṣika and other schools further interpret it. Here we are interested in the view of life presupposed by all the Indian theories, including Buddhism and Jainism.

Most Indians who reflect on the matter are of the opinion that they existed prior to the birth of their present body, and that they have existed "beginninglessly." Just what is referred to by the "they" is a matter of philosophical controversy. Nevertheless, the only important opposition to the doctrine of preexistence comes from the Cārvākas. As for beginninglessness, this is also generally accepted, although there is disagreement about some of the details, for example, about whether there is a period of rest (*pralaya*) between cosmic cycles. All these matters are subjects of discussion and argumentation, contrary to what some scholars suppose; we shall see the kinds of arguments used by Nyāya-Vaiśeṣika scholars.

As for the manner in which human beings exist, this requires a somewhat different mode of speech when we are considering Buddhism than when we are considering Hindu theory, since the Buddhists do not believe there is any continuing self or soul underlying the series of momentary states called the person. Keeping this difference in mind, we can nevertheless assert that Hindus, Buddhists, and Jains alike held that one's actions influence subsequent events in one's history; and that this happens in a perfectly mechanical manner—what one sows, one will eventually reap. To be sure, we need to qualify this somewhat for later stages of Indian thought, particularly certain types of later Vedānta, where God is granted the ability to save individuals regardless of their *karma*. However, this qualification hardly affects the period under study in this volume.

In particular, the "weight" of an individual's *karma* was held to be passed from embodiment to embodiment and to determine the particular form of rebirth the person suffered. It is important to realize that both "good" and "bad" deeds create *karma*; even refraining from performing an action may add to the weight of one's *karma*. Thus one cannot gain liberation by good deeds alone, though the performance of good works constitutes an important element in most accounts of the path to liberation. Nor can one gain liberation by

inaction, though at a certain stage in life it is thought appropriate to retire from worldly activities in favor of more spiritually directed ones.

As one lives out each embodied lifetime, he works off the *karma* that has accrued from his past actions, but accretes more of it in the course of his present activities. The problem of liberation, then, is to bring it about that *karma* no longer "clings" to one. The achievement of this stage is frequently termed "enlightenment," an appropriate term in its literal meaning as well as in its more usual sense of self-understanding. Since the *karmic* machinery is a natural fact, it is usually understood that an enlightened person will still have to work off the *karma* which clings to him from deeds prior to his enlightenment. Thus, for example, the Buddha is held to have achieved enlightenment (*bodhi*) after several weeks of reflection under a tree, but he lived on to spread his wisdom throughout the Ganges plain before he passed on several decades later. In his post-enlightenment stage, then, Gautama the Buddha corresponds with the type of person Hindus call *jīvanmukta*, "liberated while living." Not all Hindus accept the doctrine of liberation while alive, but it is a very common notion.

C. *Yoga—the Path to Liberation*: How to achieve the good life? This practical issue is the topic of a vast literature, including the types of tracts mentioned earlier pertaining to the four "aims of life" but essentially involving all serious pursuits, which are regularly connected to ultimate values just as they are in Western thought. Thus, for example, the *Laws of Manu* treats many types of practical problems, and one seeking to perfect himself cannot afford to ignore its sort of advice. Different types of living are enjoined for different sorts of personality, and for individuals of differing occupations and roles in society. The Vedas, the ancient sacred scriptures, speak especially to the Brahmins, for whom they prescribe many rites and duties. In ancient times it was apparently accepted that Brahmins were the main authority on spiritual matters and that this suggested their superior spiritual attainments. In later times this assumption was brought into question; indeed, the introduction of the notion of liberation to replace the Vedic view of *dharma* as the final aim is taken by some scholars to be an important early episode in this revolt against Brahminical pretensions.

Thus, the teachings about how to perfect oneself are exceedingly various; it is impossible to catalogue them in any succinct fashion. Western readers may have been exposed to one classification of paths if they have read the *Bhagavadgītā*; though the account of paths

expounded there has been influential, it should by no means be mistaken for the only Indian account. Nevertheless, it is a handy place to begin.

The *Gītā* teaches that there are three kinds of path to liberation: the way of *karma*, the way of knowledge, and the way of devotion. It is rather vague as to which of these is the preferable way, if any; perhaps it means to suggest that there are different ways for different sorts of people. It is also not clear whether they are to be viewed as mutually exclusive. The *Gītā* places great importance on the attitude of nonattachment (*vairāgya*) to the fruits of one's actions, which is developed early in the poem in particular connection with the way of *karma*. Here we are taught to participate in worldly activity in performing appropriate actions, but to do them without thought of personal advantage. A bit later we are shown the ideal of the man of stable insight (*sthitaprajña*), who sits meditating apart from ordinary men. He is the one who seeks true knowledge and liberation through it. Some commentators think the *Gītā* means us to understand that the way of *karma* is preparatory to the way of Knowledge; others think these two paths are to be combined. This controversy bulks large in the writings of Vedāntists.

The *Gītā* further specifies a way which it at one point characterizes as the "easy" way to liberation, which is to devote oneself to God and think of nothing but him. This has certainly tended to be most popular path in the past few hundred years, and numerous methods of devotion have been developed, such as the continuous chanting of God's name, community sings, and various odd and antinomian practices such as were apparently practiced by the Pāśupatas.

The general term for a path is *mārga*, but the *Gītā* uses the term yoga in this connection. A yoga is a discipline. A classical form of yoga is that set forth in the *Yogasūtras* of Patañjali (4th c.?); it consists of seven stages of discipline beginning with the performance of righteous acts, going on to breath-control and resulting control of the mind (and as a sidelight control of the body), and culminating in a state called *samādhi*, divided into a higher and a lower type: the lower type is the mystic's trance, the higher is liberation itself, the difference being that once one gains the higher he never loses it. An adept of such a method is known as a yogi, and yogis are generally credited with exceptional powers of concentration and control, abilities which are viewed by most Westerners with a modicum of incredulity. Naiyāyikas, who as we shall see are as scientifically minded as any Indians are, credit yogis with exceptional abilities (see below), though one may sometimes discern qualms.

V. *The Nyāya-Vaiśeṣika Conception of Liberation*

Mokṣa, meaning freedom, is not the only term used by Indian philosophers to characterize the ultimate end of life. The Buddhist term *nirvāṇa* is probably better known to most readers. In Nyāya-Vaiśeṣika two other terms appear: *niḥśreyasa,* literally "having no better," and *apavarga,* meaning an end or completion.

1. *The Developed Doctrine*: As we shall see during our survey of Nyāya-Vaiśeṣika topics, there is a tendency in maturer stages of the system to formulate increasingly technical definitions of key items. Liberation likewise receives this treatment. As an example, we may consider Śivāditya's definition of liberation as the absence of sorrow together with the posterior absence of false knowledge which is the cause of sorrow, which posterior absence is produced by true knowledge. This definition uses the technical notion of "posterior absence" (*dhvaṃsa*; the absence of something after it has existed and come to an end) and is otherwise built according to a pattern which becomes standard in Navya-nyāya.

Śivāditya's definition as it stands accords with the account of liberation usually credited to Vaiśeṣika, but not to Nyāya. It is completely negative; it does not attribute any consciousness or feelings whatsoever to the liberated self. This negative conception has called forth the gibe that freedom for the Vaiśeṣikas is being like a stone.[20] The Naiyāyikas, on the other hand, are supposed to credit the freed self with an experience of everlasting bliss. Just how far this tradition can be substantiated by the writings of our philosophers will be explored in the next section.

2. *Development of the Conception of Liberation* : The *Vaiśeṣikasūtras* present liberation as a state where the two necessary conditions for the arising of another body are absent. These two conditions are said to be the conjunction of the internal organ with the self, and a certain "unseen force" (*adṛṣṭa*) which is instrumental in producing transmigration. It is probable that Kaṇāda equates this unseen force with the accumulation of *karma* which he mentions in a later *sūtra.* If so, a person may be held to be liberated either when his *karma* becomes inoperative or when his internal organ is disjoined from his self. The latter condition is achieved in *samādhi.*

Vātsyāyana contributes a lengthy discussion, centering around the question whether liberation is a blissful state or not. He defines *apavarga* as a condition involving attainment of bliss, and says it is called "Brahman," thus, linking his discussion to the conception of the Upanishads. However, he immediately turns on those[21] who

say that the self experiences pleasure when liberated. Among his reasons we may note this: pleasure is a positive feeling toward which men characteristically develop passions of attachment or aversion. If to practice a path with an eye to obtaining liberation involves attaching oneself to the gaining of eternal pleasure, then liberation can never be achieved, since any path to liberation involves non-attachment. As we saw above, Vātsyāyana apparently has no objection to renaming absence of pain "bliss," and in this way perhaps can resolve the contradiction in his account.

Whereas the *sūtrakāras*' accounts were compatible with the conception of liberation as a state, perhaps of *samādhi*, achieved through yoga while the body lives, Vātsyāyana's discussion clearly suggests that he conceives of liberation as setting in when the last embodiment of the freed self has died. Praśastapāda's view is the same. Uddyotakara explicitly distinguishes two kinds of perfection: lower, when one is still working off old *karma*, and the higher, when all the old *karma* has been worked off.

So far, except for Vātsyāyana's puzzling use of the word "bliss," there has been nothing to suggest a divergence between the Nyāya and Vaiśesika conceptions. It is with the radical Bhāsarvajña that a real change is wrought within the system. He specifically denies that the purely negative description of liberation can be correct, and asserts that it is a state not only of pleasure but also of consciousness, as against the Nyāya-Vaiśeṣikas like Uddyotakara and Praśastapāda who say that the self loses all its qualities in the highest stage of freedom. No one wants such a state, says Bhāsarvajña.

The review of various theories about liberation given by Vyomaśiva concludes with a theory held by various schools of Śaivism, including the Pāśupatas, that the self acquires the qualities of Śiva upon being liberated, these being qualities such as eternal knowledge and pleasure. It is likely that this is a reference to Bhāsarvajña's view, though Vyomaśiva is not given to naming his sources. Vyomaśiva's own view follows that of Praśastapāda; release occurs after the old *karma* wears off and involves annihilation of the specific qualities of the self. He refers to liberation as a "prosperous" state and suggests that the word "bliss" should be construed as "absence of sorrow."

Śrīdhara's list of current theories is not as extensive or suggestive as Vyomaśiva's. His refutation of those who believe that liberation is blissful does not discriminate Bhāsarvajña's view from that of the Vedāntins, etc. He evidently believes in *jīvanmukti*, liberation while living, since he cites the Vedas and (surprisingly)

the *Sāṃkhyakārikās* as authorities for the view and bases some of his arguments on the actuality of that state.

Udayana defines liberation as the final cessation of sorrow, but his way with other conceptions is original. He teaches that we must pass through various stages of realization corresponding to the freedoms taught in other systems before finally reaching the highest state of indifference (*kaivalya*) which is the Nyāya version. Udayana calls this "final Vedānta." As against orthodox Vedānta he evidently feels that they identify liberation too readily with some kind of direct experience. On Udayana's view such an experience is not enough; one must also have a Naiyāyika's discursive knowledge of reality as well as a truly devotional attitude.

Aparārkadeva, the commentator on Bhāsarvajña, further explicates that view, arguing that bliss is not just the absence of sorrow as Vyomaśiva and others think. However, he agrees with the normal Naiyāyika view that bliss is not an eternal quality of the self, since if it were there would be no bondage and nothing to be liberated from. Though he does not spell it out, this would seem to imply that the bliss of the liberated self is a positive quality acquired by the liberated self, perhaps from identification with Śiva.

One final note : Udayana, it is said, departed from tradition by acknowledging that liberation for all (*sarvamukti*) is possible and a legitimate end to strive for, reminding us of the Buddhist notion of the *bodhisattva* who delays liberation in order to work for the salvation of all. Srīdhara, on the other hand, denies this view, and Śrīvallabha later on also rejects it.

It would appear from our rapid survey that the tradition, reported for instance in the *Śaṃkaravijaya* of Mādhava, that Naiyāyikas generally take a positive view of liberation and Vaiśeṣikas a negative one, is true only for that section of Nyāya which follows Bhāsarvajña. Just whether he was the originator of that interpretation is not clear from the evidence.

VI. Arguments for the Possibility of Liberation

Granted that the above is what our philosophers mean by the terms for "liberation," why should we believe there is any such state ? Doubts about the possibility of complete freedom are not limited to Westerners; early Indians apparently suffered from them too. The *Nyāyasūtras* discuss several doubts which were raised, and this discussion is reviewed and continued in the subsequent literature. One doubt is that we do not live long enough to prepare for liberation,

since the Vedas teach that Brahmins must finish all their other duties before retiring to practice a path. Another is that human nature is naturally so imperfect that no amount of striving will completely rid us of our faults. Furthermore, we cannot help becoming attached to things in the course of living, and since attachment automatically produces bondage we will never become free. Gautama's response to these doubts is that the scriptural passages which cause the doubts can be construed in other ways compatible with liberation, indeed that properly understood the Vedas encourage a man to retire to meditate and liberate himself. As for the doubts about man's evil proclivities, Gautama's answer resembles that of his famous predecessor Gautama the Buddha, who pointed out that happily we know the causes of our imperfection and so can treat the disease; and this answers the last difficulty also, since true knowledge of the causes of attachment will enable a man to practice a method of ridding himself of it. Jayanta adds that just as heat renders a seed ineffective, true knowledge makes one's past deeds ineffective, so that no new *karma* is produced.[22]

Later writers felt the need of more rigorous arguments in favor of the possibility of liberation, not perhaps so much because skepticism became stronger but rather because as the system developed it became more enamoured of its method, which involved providing definitions and arguments for everything thought worth discussing.

The classical Nyāya argument for liberation is inferential: "whatever comes into being successively is perishable, like the wheel of fire," or in a slightly different form, "the series of sorrows in the self finally gets cut off, because it is a series, like the series of flashes constituting lamplight." Udayana says everyone accepts this argument. Śrīdhara, however, does not accept it, since he thinks there is a counterexample to be found in the series of colors belonging to atoms of earth, which he takes to be an endless series. Udayana's answer to this is that inference equally well proves that the series of colors of earthy atoms also comes to an end.

VII. *The Path to Liberation: Nyāya-Vaiśeṣika View*

We come now to consider precisely how the Naiyāyikas think liberation should be sought, and in particular what relevance philosophical investigations have to the quest.

1. *Causes of Bondage and Liberation*: The *Vaiśeṣikasūtras* present the following picture of the path to be followed in seeking freedom: one should behave according to Vedic precepts; this produces merit

(*dharma*) and eventually exaltation (*abhyudaya*), whereas impure behavior produces demerit (*adharma*). Bondage (*saṃsāra*), however, is caused by both merit and demerit (*adṛṣṭa*=*karma*). It is because of our attitudes of desire and aversion that we act in ways which produce more *karma*, and these attitudes have as a necessary condition the contact between the internal organ (*manas*) and the self of the individual person. It becomes clear that the method of liberation involves gaining control over one's internal organ. Yoga is the control of that organ so that it does not come into contact with the external sense organs (*indriya*); when such contact ceases, there are no more feelings of pleasure and pain for the individual, and this in turn stifles any desires or aversions. Eventually the trance-like state, which as we have seen Gautama likens to deep sleep, sets in, and when this separation of self from internal organ is achieved and the old *karma* lived out, the self is completely liberated from bondage, since there is no way for *karma* to come again to operate on him.

What is not clear from Kaṇāda's account is how knowledge is related to this process. Gautama's *Nyāyasūtras* makes this more explicit. In his second *sūtra* he presents a fivefold chain of causal conditions leading to bondage. The chain begins with wrong knowledge (*mithyājñāna*), which is a necessary condition for faults (*doṣa*), which are in turn productive of activity, which results in (rebirth) which is the cause of sorrow. This is reminiscent of the twelvefold chain of Buddhism (*pratītyasamutpāda*), which leads from ignorance (*avidyā*) to rebirth and misery in a somewhat more complicated series; according to the Buddha's chain the last member of the series, rebirth, is responsible in turn for the first member, ignorance, so that the whole thing is likened to a wheel. We may suppose that Gautama's version is also wheel-like. In any case, it is clear from what Gautama goes on to say that one seeking liberation from sorrow is to break into this chain by replacing wrong knowledge with right knowledge; thus, the necessary condition for faults being lacking, they in turn will not arise, and activity as a result will not either, nor will birth nor sorrow. And absence of sorrow is liberation.

This true knowledge, Gautama explains, is to be achieved by the classical methods of concentration, meditation, and yoga, but he significantly adds that one may get it by discussion with others. It is this latter means that the Nyāya system is especially concerned to expedite; thus it is necessary to have a complete set of rules for the carrying out of proper discussions which will conduce to true knowledge.

The "faults" of which Gautama speaks he lists as three: attrac-

tion, aversion, and delusion. The last-mentioned is again a significant addition. Kaṇāda speaks primarily of mistakes in attitude, whereas Gautama is concerned about failure of understanding. Gautama also uses the term *kleśa* in a later section to denote wrong attitudes. He explains that *kleśas* are not natural events but are caused by wishful ideas (*saṃkalpa*). These wishful ideas are born from delusions that normal humans are subject to. Vātsyāyana gives a striking example when he cites the fact of male attachment to the female body; that the body is attractive is a misconception which he recommends eliminating by paying attention to the displeasing aspects of the body. But to develop an aversion to the body would be equally wrong; what is to be practiced is an attitude of nonattachment, and it is clearly the opinion of Gautama and Vātsyāyana that this attitude can only be cultivated when things are seen as they really are and not otherwise. Thus knowledge of truth, while not in itself the path to liberation, is an essential part of the procedure of gaining it.

This general picture is accepted and developed by all the subsequent writers. There are occasional interesting modifications. For example, Candramati, perhaps concerned that the above account may be construed as enjoining one to abstain from meritorious actions, explains "merit" as having two varieties: the kind which produces positive activity, and the kind which produces cessation of activity (*nivṛtti*). The acquisition of merit of the latter kind results in a state of delight in perfect cognition free from attachment. Presumably we are not, however, to identify this state with liberation, but rather with an advanced stage of yoga.

As is to be expected, the later writers, presupposing the account summarized above, proceed to the details of precisely how wrong knowledge is produced and the methods by which it is to be eradicated. Some of our writers occasionally allude to implications of their theories for the general Hindu theory of value. For example, after the time of Vedāntins like Maṇḍana Miśra, Bhāskara, and Śaṃkara, the question of the relative importance of knowledge and action becomes more frequently raised, perhaps because of Śaṃkara's radical endorsement of the path of knowledge to the exclusion of action. The more traditional view, that one must tread a combined path of knowledge and action (*jñānakarmasamuccayavāda*), defended in Vedānta by Bhāskara, is attributed to the author of the *Nyāyabhūṣaṇa*,[23] and is defended in *Vyomavatī* and *Nyāyakandalī*. The nub of the discussion centers over whether one must still perform the actions prescribed in the Vedas even after he has embarked on a discipline

leading to liberation. Śamkara's answer is no, that one must only attend to the Vedas up to the stage of adept (*adhikārin*) but not afterwards. By comparison, Naiyāyikas tend to be surprisingly conservative. Udayana may perhaps constitute an exception to this general assessment. He points out that activity prescribed by the Vedas is intended to gain advantage for the agent, and that insofar as that is the case one cannot, for example, explain the actions of ascetics as enjoined, since they do not act purposively. Udayana is no antitraditionalist, however; he spends more than one extended passage complaining about the deterioration of general *dharma* brought about by decay of faith and self-control.

The most important modification of the traditional view of the path to liberation in Nyāya-Vaiśeṣika is the introduction of the notion that God must at least permit, if not be operative in, the process. The first of our writers clearly to include God in the description of the path is Praśastapāda, whose introduction specifies that merit together with God's injunctions produce the knowledge about reality which is necessary for liberation. However, in later reviews of the same topic this reference is absent; one may safely say that God is not much on Praśastapāda's mind. Uddyotakara brings in God as the creator of merit and demerit, but nothing he says implies any interruption of the machinery by which the self earns good or bad *karma* by his actions. It is probably with Bhāsarvajña that God begins to play a more positive role, although from the *Nyāyasāra* all we can glean is that knowledge of God is the touchstone to the removal of wrong attitudes. But none of this is particularly surprising: God is taken to be the author of the Vedas, after all, and thus plays a role of importance for any interpretation of paths which admits that the Vedas are relevant.

The fact is, as Ingalls remarks, that "among the beliefs concerning man which are essential in the old Nyāya is a belief in the efficacy of human effort. ..Any statement which involves *karmavaiphalya-prasaṅga*... or *akṛtābhyāgamaprasaṅga*... is *ipso facto* wrong. This belief...is common in India."[24] The lengthy Sanskrit terms in this quotation are ways of formulating the notions, which Naiyāyikas hold to be faulty, that what men do has no regular connection with their deserts, either because the deserts vary or because the whole process is out of their hands, being controlled by a superior power. In short, the Indians generally believed in freedom of the will at least to the extent that men were not conceived to be pawns in the hand of a superior power.

VIII. *Advanced Spiritual Practitioners: Yogis, Sages, etc.*

That certain individuals have remarkable powers because of their spiritual advancement is a generally accepted notion in India. The Naiyāyikas do not question it, and our philosophers make occasional comments clarifying precisely what claims of special powers they are willing to endorse. The reader will not find case histories of yogic experiments here, but we can sift out a few general abilities credited to men with special powers and gifts.

Kaṇāda says that sages (*ṛṣis*) and "perfected beings" (*siddha*) have special powers of awareness. It is a stock Nyāya-Vaiśeṣika theory that yogic perception is different from ordinary perception and deserves special treatment. The reason for its needing special treatment is that yogis are held to be able to occupy several bodies at once, as well as to have transtemporal experiences. According to some of our philosophers this ability gained through yoga enables an individual to achieve immediate liberation. Since a yogi has the power to move his internal organ into contact with a number of bodies simultaneously and to bring it about that the *karma* accreted from past deeds gets worked off faster than it would take for normal individuals, he can do what would otherwise be inexplicable, namely work off past *karma* at more or less the same time as he achieves enlightenment. This account is detailed especially in *Vyomavatī*.

About the sages, among whom are normally included those reputed to be the original redactors of the Vedas (God, of course, is the Vedas' author), we hear from Praśastapāda that, like the gods, they have bodies produced by meritorious *karma*. In this they contrast with ordinary humans, whose bodies are produced by a mixture of good and bad *karma*, and with insects, whose bodies are produced by predominantly bad *karma*. Sages have a regular intuitive ability called *prātibha* which ordinary humans manifest only occasionally. This ability gives them knowledge about past and future as well as present but removed events. The *siddhas* or perfected beings referred to by Kanāda, Prasastapāda says, have both perceptual and inferential knowledge of the workings of *karma*. Special drug-induced insights are also attributed to these people. Jayanta says that both yogis and sages can see *dharma*. But later writers have less to sav about the special powers of these exceptional types.

IX. *Arguments for Pre-existence and Immortality*

As indicated above, Naiyāyikas were fond of defending stan-

dard Hindu doctrines with arguments that could be tested against the rigorous requirements which they established in their theory of inference. I note here a few such arguments without, again, considering at the moment the question of their rigor, since we are not in a position yet to compare them with appropriate standards of criticism.

In connection with the proof that an individual's self or soul is eternal, Gautama provides some arguments for its preexistence. (1) "Because the new-born infant experiences joy, fear, and sorrow —which could follow only from the continuity of remembrance of what has been repeatedly gone through before (the self existed before)," (III.1.18) (2) "(The self must be regarded as eternal) because of the desire for milk from the mother's breast, which is evinced (on birth) after death, and which can only be due to repeated feeding (in the past)." (III.1.21)[25] Commentators on this passage add further variations. Uddyotakara argues that the same self is child and man, because of its smile, and Vācaspati points out that the child's fear of falling can only be explained on the hypothesis that it has fallen before and remembers it.

Now the obvious answer to these arguments is that the phenomena alluded to—reactions of joy and fear, of attraction to the mother's breast—are natural, that is to say, they are events occurring in the body and needing no appeal to an agency inside to explain them. Gautama considers this answer. For example, he has an opponent say that reactions of joy and fear are like the opening and closing of a flower, and his answer is to the effect that the opponent is eventually unable to say what these motions of the flower are due to, and will have to assent to the principle that motions are caused by conscious agents. This principle provides the basis also for the main Nyāya argument for God's existence, as we shall see.

Again, an opponent argues that the attraction of the child to its mother's breast is like the attraction of iron to a magnet, and needs no conscious agency. Gautama's answer is too short to be completely intelligible, and the commentators labor to interpret it. Vātsyāyana's interpretation is this: iron, alone among metals, is attracted by magnetism. As there is a special factor among the causal conditions of the phenomenon of magnetism which limits the kinds of metals which are attracted by magnets, so there is a special factor among the causal conditions of the phenomenon of breast-feeding which limits the kinds of objects which are attracted to the breast. Now what is the special factor in each of these cases? Vātsyāyana has no opinion to offer about the explanation of magnet-

ism, but as for the child's response to the breast he says that the special factor here is the memory on the child's part of this sort of experience in the past, and that this hypothesis is "entrenched"[26] in our actual experience that desire for food proceeds from our memory of past experiences.[27]

3

NATURE OF A PHILOSOPHICAL SYSTEM

What is a philosophical system? A *system* is a set of concepts which are interrelated so as to explain what needs to be explained fully, accurately, and with no waste motion. In India a *philosophical* system is one which is pertinent to the ultimate supreme value of mankind, the gaining of liberation. Expanding on this a bit, we can discern several criteria that an Indian philosophical system will try to satisfy.

The statements in which the interrelated concepts which comprise the system are expressed must all be true. What is sought is truth; what truth is is itself a philosophical question. A philosophical system must commit itself to a theory of truth and then justify it by showing its place within the system itself. Since of two contradictory statements only one can be true, it follows that a satisfactory philosophical system must contain no mutually contradictory statements.

The system must explain everything which is relevant to the problems involved in achieving liberation. That is not to say, as we have seen, that the system itself is the mechanism of liberation, though Naiyāyikas at any rate feel that its construction is a necessary ingredient in the identification of the path to freedom. Thus the system does select, from among the indefinitely many things it might pay attention to, those things which are pertinent to human aims. However, this is not as restrictive a criterion of relevance as one might at first think. Since others have different conceptions of what is the ultimate value, or other versions of what liberation consists in, their mistaken views must be addressed and corrected by reference to one's own philosophical system, either through arguments formulated in the opposition's own terms or in some other fashion.

It is obvious that there are difficulties in the way of formulating truths in a system that utilizes concepts which were created by others

for the purpose of expressing what are, in fact, falsehoods! It is for this reason that one must be more circumspect about the relations between one's system and the world it attempts to explain. We'd better back up and start again.

Let us think of the world to be explained as a set of sentences expressed in everyday language, with no selectivity imposed upon it other than the criterion of relevance mentioned above. That is to say, we are to think of an indefinitely large set of sentences, some no doubt true, some false, some perhaps confusedly or improperly formed so that their truth or falsity is difficult to assess. All that is necessarily common to the sentences in this set is that they are intended to be descriptive, and that in some way or other the question of their status (true? false? neither?) is or might become relevant to the attainment of liberation.

Now let us think of a philosophical system as another set of statements which contains "translations" of the sentences in the first set. The concepts which are utilized within the translations are not necessarily found expressed in the sentences to be explained. The system maker is not bound to honor every commonsense or ordinary-language hunch or habit about these things. Yet, he must of course choose wisely in formulating his system, so that no contradictions within the system crop up, so that no falsehoods are contained or implied in the system, so that all the true sentences in the original set are paralleled by truths within the system, and so that this is all achieved by the smallest number of basic concepts. Thus, beside the criterion of relevance to human concerns, the other criteria in philosophical system making are those of accuracy, adequacy, and economy.

A system is successful if it fully satisfies the above criteria. But since the concepts and, indeed, the language the system maker chooses may not be known or intelligible directly to others, he will need to have ways of informing them of what he is doing. A convenient example is that of a map, which is a kind of system in the sense I am characterizing. A map may provide accurately, adequately, and economically the information sought to be provided by an indefinitely large set of signposts, verbal directions, and so forth uttered and written in everyday speech. But someone on his way to a new locale and needing directions may not find it helpful to have a map thrust into his hands when he asks for guidance, unless the map also contains, or he is otherwise provided with, directions for using it couched in language he can understand. Thus the philosopher cannot merely concentrate on constructing an accurate, adequate, and economical

system. He must also attempt to convey to the rest of mankind a sense of what he is doing and has done. He must demonstrate to them that his system really is a map of the required territory.

A philosopher is thus speaking at several different levels—or if you like, in several different languages—at once as he goes about his business. Beside the ordinary speech in which everyday activities are carried on, and the technical vocabulary of the system which he learns to master as he constructs it, he must utilize a third sort of language, one which serves to link his activities with that of others. A procedure frequently practiced in this connection by philosophers is that of providing "explications" of the technical concepts utilized in the system. These explications are sometimes the cause of misunderstanding. It is clear that they are not intended, as definitions sometimes are, to state two equally tenable ways of describing something in one language. Dictionary definitions may be intended to satisfy the requirement of interchangeability *salva veritate*; the definition "bachelor=df. unmarried male" suggests that wherever one of these expressions turns up the other may be substituted for it without changing the meaning of the sentence. But an explication of a technical term in our sense is not like this at all, since it links terms drawn from two distinct "languages"—ordinary language and the language of the system.

Nor is this kind of explication to be confused with yet another that may also be promulgated by the philosopher. In building a system one characteristically defines a number of his technical concepts in terms of others, with a small number being considered primitives for the system. The structure of defined terms and primitives properly interrelated constitutes the system itself, indeed, since the interrelated terms are the statements of the system. Nyāya, we shall see, develops later on toward *this* conception.

What has been said will perhaps adequately suggest for the moment the nature of the relation between a system and the world it explains. Now let us consider the steps involved in constructing such a system. We may do this by reviewing several sorts of choices one is called upon to make, choices which raise fundamental problems of philosophical conviction and taste.

Incidentally, in reviewing these choices we are, fortunately, able to operate under many of the same assumptions for India as Western philosophers make. The reason, as we shall see in a moment, is that both Sanskrit and the common Western languages—English, German, French, etc.—share the characteristic of being fundamentally subject-predicate languages, that is to say, they all formu-

late most of their sentences in subject-predicate form. Thus, we may refer to this form in identifying the kinds of choices system builders are called upon to make, and these references are as legitimate for Indian philosophy as for Western.

What methodological choices must a philosopher make, then ? First, he must make a decision about the kind of *logic* he will avail himself of. This is not only a question of whether he will respect the laws of noncontradiction and excluded middle; it may involve that. But it is also a question of whether he chooses to let all his terms name, and what sorts of things they will be allowed to name. Thus, for example, one philosopher may limit the referential terms within his system to those which occur in the subject, not the predicate, place in the systematic statements, construing predicates as indicating arrangements among their subjects, which arrangements are not to be considered additional entities. Another philosopher may feel that no such distinction is warranted or needed. The question, notice, is not whether or not it is the case that predicates name— no such question can be raised, since we are not concerned with a language already given but with one we propose to construct. The guiding considerations are rather, for example, whether we plan to link reference within the system with ontological commitment, so that if asked what things exist we have a ready answer at hand merely by considering which concepts appear in the subject places of statements within the system. It also may reflect a philosopher's feelings about abstractions; if he is suspicious about admitting universals, or classes, or whatever, among the entities his system recognizes, he may choose to link classification with predication and have only his nouns (terms in the subject place) refer to individuals. These considerations may be viewed as a matter of taste, although philosophers tend to feel strongly on such matters and sometimes can trace their feelings to well-grounded hypotheses, e.g., that a system admitting such-and-such kinds of entities is more likely to contain hidden contradictions than other systems, or that it is less powerful or economical.

Second, a philosopher engaged in constructing a system will wish to decide whether he wishes to restrict the things spoken of in his system in certain ways. For example, he may wish not to allow as fundamental elements in his system any entities which are spatiotemporally extended; he wants to rebuild the world from events occurring at one point in space-time each. Or he may allow spatial, but not temporal, extension, or vice versa. A different sort of choice is that between a system built from physical entities and one built from

phenomenal entities. The physicalist tries to translate sentences in ordinary speech about our experiences without exception into systematic statements confined to terms referring to (or defined in terms of other terms referring to) the kinds of things physics investigates. A phenomenalist, on the other hand, hopes to manage the reverse, to explain all the physicist's reports in terms of concepts reflecting modes of awareness such as the colors, feels, and other observational reports which are held to verify the physicist's conclusions. Again the reason a philosopher makes one choice on these matters rather than another may be as vague as intuition or as precise as a formulable hypothesis about the fashion in which the wrong choice will certainly violate one of the criteria of system making. It might be well to note, also, that choices of this sort are not always necessary in the sense that the alternatives need not be mutually exclusive. Nyāya, for example, allows both physical and phenomenal terms into its system.

Finally, a philosophical system builder must decide which primitive notions he is going to start with. Not that he discovers which they are by some special sort of intuition; he discovers it by hard work. It is the interrelating of the primitives which constitutes the economy of the system and which accounts in part for its adequacy and accuracy as well. For the more powerful a basis for a system is, the more decisions it will make about which among the sentences to be translated are the true ones.[1]

Nyāya-Vaiśeṣika as a Philosophical System

The sketch given above of a philosophical system of course represents a very advanced stage of self-awareness on the part of philosophers about what they are up to. Philosophers develop this kind of self-awareness about method over the course of history. Nyāya-Vaiśesika is no exception. I think it can be seen that a sophisticated account of Nyāya-Vaiśeṣika will construe it as a system of the kind described, but it is also evident that the early Naiyāyikas were less aware of the principles of system construction than were the practitioners of Navya-nyāya. However, to do justice to Nyāya we should view it in the light of what it has become and not only how it began. And the distortion of historical perspective involved is not as serious as one might suppose.

We have seen, in the previous chapter, the nature of the human concern which provides the Naiyāyika with a criterion of relevance. As early as the *sūtras* the selection of certain topics as philosophically

relevant is commonplace; the lists of categories (*padārthas*) given by Nyāya and Vaiśeṣika reflects this selectivity. The Vaiśesika categories are intended to provide an exhaustive catalogue of all the things that need to be referred to in a discussion about the nature of the world and the place of liberation in it, and the Nyāya list is constructed in the same way. The lists are rather different. Vaiśeṣika countenances 6, later 7 varieties of entity; they are the "reals," the stuff of which everything else is made. Nyāya's list of categories, some 16 of them, ranges wider. It began as a list of topics for a manual of debate or discussion, for the reader will recall that Gautama viewed discussion as one means toward liberation, and the means particularly within his province. The ontological categories of Vaiśesika come later on to be incorporated within one of the Nyāya 16, namely under the category of *prameya*, the objects which are to be understood correctly. The Nyāya list of categories also commits it to an interest in the ways of knowing—thus to epistemology and logic— as well as a good many other things connected with the discovery of truth through discussion and debate.

Recognition of the other criteria of system making that were listed above is demonstrated in the writings of our philosophers. Concern about accuracy is contained in the extended attention given to the questions of validity, the means of knowing, and the nature of illusion. Consistency is clearly appealed to constantly in the Nyāya theory of inference, and there is no reason to think that contradiction is viewed any differently from the way in which Western philosophers from the Greeks on have viewed it. Inadequacy, that is to say, the inability of the opponent to explain something which clearly needs explaining, is a common ground for refutation, and likewise the ability of a hypothesis to explain more than its alternatives is made the basis of acceptance. There is a Sanskrit word for lack of economy, *gaurava*, meaning "heaviness," which is considered a fault by the later writers of our period and by Navya-naiyāyikas. Simplicity as a criterion may be construed in numerous ways, however, and it is so in India as elsewhere.

Nyāya-Vaiśeṣika is frequently referred to as the philosophy which is closest to common sense. The suggestion is that they were the arch-empiricists among the Indians. Murti writes "We are all Naiyāyikas first and continue to be so unless by a special effort we free ourselves from the empirical habits of our mind."[2] No doubt the Naiyāyikas were as empirical as most Indian theorists, if only because they made all truth-claims about things within reach of the senses turn ultimately on direct observation. But they were at the

same time among the most imaginative of systematic philosophers in their constructions. We shall see below the extent to which they developed such matters as the theory of relations, of universals, and of absences far beyond anything one could hope to find presaged in common sense. However, Nyāya may be admitted to be closer to common sense than other theories in that they considered the range of relevant common-sense sentences which needed systematic translation to be much wider than did most other systems. This is mainly because of their belief that intellectual discussion can pave the way for spiritual realization, a belief which certain other philosophers do not share. Given that intellectual doubts about liberation are obstacles to progress toward human perfection, it becomes clear why the Naiyāyika believes that nothing short of a full-scale account of the nature of the external as well as the psychical world will do. Both these parts of the world must be shown to be such as to allow the possibility of liberation.

With these beliefs and attitudes in mind we can turn to the decisions system makers must make which were mentioned above. First, as to questions of logic. The old Naiyāyikas groped for a system, perfected by the Navya-naiyāyikas, in which each technical term, whether subject or predicate, has a referent. Thus, they do not limit the referential terms in a syntactical manner, and they do not construe ontology as determined by the list of things named by nouns only. In this they resemble the bulk of Western philosophers. However, they were perhaps more consistent in this choice than many Western philosophers in that they were led to construe even what we now call "logical connectives" as naming entities. Western philosophers tend to distinguish terms like "and," "or," and "not" as differing in kind from referential terms like "man" or "walks." They came to a sort of reckoning over the little term "is" as used in a sentence such as "the sky is blue." Does "is" refer here? If so, to what? And if not, why do other verbs refer? The Naiyāyikas fail to distinguish logical terms from others: to them "is" denotes positive being, "not" denotes negative being, i.e., absences, "and" and "or" denote certain complex relations.

Furthermore the Naiyāyikas were not suspicious of repeatable entities such as universals. Their logic countenances them among individuals as referents of either nouns or verbs. The reasons why they do so are reviewed by them in their arguments, and are summarized below.

Although Nyāya admits universals among its elementary entities, one should not leap to the conclusion that its logic is intensional

in the more rigorous senses of the word. If we use the term "intensional" to speak of a system in which two distinct terms may have the same content, that is, range over exactly the same entities, and "extensional" to speak of systems which do not allow difference of entity without difference of content, then we must conclude that Nyāya-Vaiśeṣika is an extensional system. In fact, the principle of extensionality is explicitly formulated by Udayana among the so-called impediments to universalhood (*jātibādhaka*).[3] By the same token, the temptation to construe Nyāya as speaking of classes—a temptation that becomes strong when we consider its definition of number (which resembles that of *Principia Mathematica*) must be resisted for precisely the same reason: that classes do not satisfy the principle of extensionality.

The second kind of choice we noticed system makers must face is that concerning the elements of the system. Here the Vaiśeṣika ontology seems clearly guided by a straightforward rule of thumb, which is that the basic elements must be conceived of as without parts; they have no constituents. This leads them to view the ultimate components out of which material things are produced as atomic. However, they also view space, time, selves, and internal organs as elements, as well as various properties and relations. The Vaiśesika ontology is, by comparison with some that have been proposed, a very rich one: it begins from over 40 kinds of basic elements. But then, it promises to explain rather more than many systems do, and furthermore, as we just saw, it allows predicates to denote as well as subjects, thus necessitating the admission of relations as well as *relata* into the system's basis.

As for the choice between realism and particularism, that is between a basis which allows spatiotemporal repeatable elements as opposed to that which restricts itself to events, Nyāya-Vaiśeṣika is flatly on the side of realism. Belief in substance, i.e., in continuants through space and time, is a basic plank in their philosophical platform.

It was mentioned previously that Nyāya's basis is both physicalistic and phenomenalistic. Not only are physical atoms elements of the system, but so too are colors, tastes, sounds, and smells. One implication of this is that the Nyāya accepts no so-called principle of acquaintance in arriving at its position. Items which are known to us only by inference are perfectly admissible as elements of the system side by side with those which are directly perceived. The existence of several of the basic Nyāya-Vaiśeṣika categories are held to be demonstrable only by inference: e.g., space, time, and the internal

organ, as well as inherence, one of the basic Nyāya relations. To be sure, there are those among our philosophers who later on argue that some or all of these too can be directly perceived at least by yogis. Nevertheless, no Naiyāyika ever argues that admissibility as an element is contingent upon being the object of direct awareness.

As for the final choice, that of the primitives of the system, we shall be studying these as we work on through the details of the system.

One final matter, on which Nyāya-Vaiśesika once again parallels other philosophical systems. We saw that a philosopher engaged in systematic philosophy must not only construct the system but also communicate with others what he has done, and that this is frequently done by means of explications which connect terms within the system with ordinary language. There is even a small-scale theory of explications developed, mainly by the later writers, giving principles by which such explications can be criticized. An explication, or "definition," must be such that it neither overextends so as to apply to unintended things, nor underextends so as to fail to apply to things intended. And, obviously, a definition which applies to things directly contrary to what is intended is unsatisfactory.

As is to be expected, these definitions are not intended to completely characterize the *definienda*; they merely serve to pick out from among things that might be confused with the thing which is being defined. In this way they are said to indicate *differentia* (*asādhāraṇadharma*) of the *definiendum*. It is important to keep well in mind, though, that the *differentia* are properties alluded to in ordinary, not systematic, parlance. In a definition of this kind, the technical term from the system is the *definiendum*, and terms whose meaning is known to the public constitute the *definientia*. This is why it would be wrong to suppose that definitions in Nyāya serve to identify the "essence" of the things being defined, as Biardeau rightly notes, and it also explains what she finds rather puzzling, namely the nonchalance earlier Naiyāyikas exhibit toward problems of definition.[4] It is typical of philosophers constructing systems that they should tend to feel that the worth of their constructions will ultimately stand or fall on its overall ability to explain, and not on the individual correlations between its terms and those of common sense. In this way Naiyāyikas are committed to a kind of "holism" in Quine's sense.[5]

4

RELATIONS

We shall not delay any longer getting into the system itself. First of all, we shall survey the ontological categories of the Vaiśeṣika, which are accepted also by Nyāya. Later on we shall turn to problems of epistemology. Inevitably, whichever way we choose to expound this system, it will turn out that we must refer to material as yet unexplained in order to fully illuminate what is under discussion at the moment. That is the way with a philosophical system; were it not so, the more unsystematic one's philosophy must be. Thus, as we have chosen to treat metaphysics before epistemology, certain things will need to be referred to in earlier chapters which will only receive full treatment in later ones. For example, given this decision about the order of exposition we shall not discuss the theory of inference until later, and so I shall sometimes need to refer the reader to material developed in the section on inference in order to fully clarify an argument which is put forth in defense of a certain ontological category. Likewise, questions about the experiential basis for ontology, though they will come up in the section on ontology, will have to await full resolution until the theory of perception can be developed more fully.

A sizable group of the sentences Nyāya-Vaiśesika wishes to translate into its system concern the makeup of the external world, those objects with which we deal in our everyday affairs. Since it is attachment to the agreeable characteristics of these objects which breeds *karma* and *samsāra*, a prime purpose of philosophy is the successful analysis of the makeup of these things, so that the aspirant for liberation may truly understand the sources of the attraction and be able to adopt a suitably disinterested attitude to them.

In order to provide technical terminology with which to translate suitably sentences about objects and their constitution, the Vaiśesikas propose a number of types of basic elements of their system,

together with relations to connect them in such a way as to build larger objects. The relations, as we have seen, are included among the basic elements, so that in choosing just these elements the Vaiśeṣikas are at the same time working out their choice of primitive terms.

The sentences of the system, as well as those of ordinary language which the systematic ones will translate, are taken to be in subject-predicate form. Thus, some of the elements may occupy the subject place only, others may occupy the predicate place only, and many can play either role depending on context. Do not think, however, that the Vaiśeṣika thinks of his basic elements as terms; they are real entities, existing independently of our thinking, as we shall see later on. The system, though we may speak of it as a language into which another language is being translated, is in fact a map of the nature of things itself. We may think of the matter this way. In the real world there are substrata (*dharmin*), properties (*dharma*), and relations (*sambandha*), each having appropriate subdivisions. The entities combine in the world so as to produce further entities; they also are related so as to constitute what we may call facts. The minimal form of a fact, call it an "atomic fact" if you will, consists of a substratum connected by a relation to a property. More complex relationships are also found. The "sentences" of the system are linguistic entities which reflect the form of such facts. The terms of these sentences must denote elements of the system, or else be expandable into sentences whose terms each denote an element.

Naiyāyikas are fond of a saying which is sometimes found at the head of their works : "whatever is, is knowable and nameable" (*astitva jñeyatva abhidheyatva*). A bit of thought about this maxim suggests how clearly they conceive their task in the manner I have been suggesting. The knowability and nameability, as well as the existence, spoken of in this saying must be understood as existence, knowability, and nameability *within the systematic language*. Otherwise contradictory views could both be true, since it is possible to name both *x* and its nonexistence. But the things which really exist, namely the basic elements and their products, are named by terms in the systematic language, whereas the things which other people think exist but which actually do not are not named at all within the system. In addition, other philosophers have hypotheses granting existence to certain kinds of things (e.g., darkness, as we shall see) which they misconstrue. Darkness exists, but its name within the system is not "darkness" but something else—"absence of light," according to some of the Naiyāyikas.[1]

It cannot be emphasized too strongly how important to the

Nyāya-Vaiśesika's program is the postulate that substrata and property are different entities entirely (*dharmadharmibheda*).[2] We shall return to illustrate the importance of this for a realistic epistemology in Chapter Eight. The Naiyāyika is always careful to distinguish combinations of elements which produce further elements from mere aggregations of elements, which do not "produce" at all in the technical sense adopted by Nyāya-Vaiśeṣika. This being the case, it may be well for us to have some terminology of our own to distinguish those things recognized by Vaiśeṣika as belonging to one of the categories from those aggregates which are not. So far I have used the term "element," but this is somewhat unfortunate, for we shall need this term to distinguish certain types of substances from others. Therefore, I wish to introduce here the term "individual," which will refer to any entity belonging to one of the Vaiśeṣika categories, and is to be contrasted with "object," which I shall use to speak of aggregates as well as what were called "facts." An individual has no parts in the strictest sense: it is not a sum of any other individuals.

The *Vaiśesikasūtras* distinguish 6 kinds of individuals. They may be referred to in English expositions as: (1) substance; (2) quality; (3) motion; (4) universal; (5) individuator; (6) inherence. Later on a seventh category of individuals was added, that of (7) absence. The Sanskrit term translated by "category" is *padārtha*, literally a thing to which words refer. As pointed out previously, the individuals may be thought of as the *denotata* of the terms in the systematic language, which is just what is implied by the use of this word.

Of these 7 categories that of inherence is comprised by a relation or relations exhaustively; category (2), that of qualities, contains in its list of types of quality several of which are relational, namely contact, number, separateness, and disjunction. Later on Nyāya theory developed the notion that anything could function as a relation by linking itself to another thing. Since the Naiyāyikas' choice of individuals is in large measure guided by their conception of how such individuals are to combine to form facts, we had better start our review of ontology by examining their theory of relations.

First a few technical terms. A notion we may concede to be primitive for Nyāya is that of a "locus" (*āśraya* or *adhikaraṇa*). The best a Naiyāyika can do to explain what a locus is to say that it is that which we say things reside "in" or "on" or "at." It is not spatiotemporally conceived, although spatiotemporal difference implies different loci. According to Praśastapāda the first 5 categories

are loci, and Śivāditya echoes this when he defines *x*'s *being a locus* (*adhikaraṇatva*) as *x*'s property of having a universal resident in it. Any two things related in such a way that one is resident in (on or at) the other can be called a resider-residence-relation (*āśrayāśritasambandha*).

A related pair of terms which has an epistemological connotation is that of "qualifier" (*viśeṣaṇa*) and "qualificand" (*viśeṣya*). A thing qualifies another when we conceive it to. Praśastapāda limits qualifiers to the first 5 categories, but Uddyotakara and later writers appeal to a relation called "qualifier-qualificand-relation" (*viśeṣaṇaviśeṣyasambandha*) which, e.g., connects inherence to its relata or absences to their loci. This is perhaps the first self-linking connector (*svarūpasambandha*).[3] According to the *Nyāyalīlāvatī* "qualifier" and "qualificand" have no fixed meaning; sometimes the distinction indicates relative importance, sometimes that one is contained within the other, sometimes that one is the locus of the other. Sometimes, Vallabha says, the relation is not even real. This admission lets in a host of epistemological problems which we shall have to postpone for now.

In Navya-nyāya further useful technical terminology was developed to handle relations, as their awareness of the importance of relations for their system increased. Some of these terms begin to be used in the latter part of our period. For example, the term "limitor" (*avacchedaka*), though found in early texts, begins to assume its technical sense in *Nyāyalīlāvatī* and *Saptapadārthī*. Vallabha says that the universals inhering in earth atoms are the limitors of the inherence causes of smell, and Śivāditya defines a moment as time limited by a motion. The terms *anuyogi* and *pratiyogi*, used to differentiate the *relata* related by relations which point only one way, so to speak, are found used in this way by Bhāsarvajña, for example, but are not frequent until the later literature. But the directionality of inherence and contact is implicit in the theories of the older writers.

I. Inherence

Kaṇāda explains inherence as the cause of the notion that something is "here" in a locus, and connects its function to causality. He also conceives that there is only one inherence, since there is no indication that different inherences connect different pairs of things related by inherence. The theory of a single inherence carries on until Navya-nyaya times.[4] As for the definition of inherence, however, our philosophers begin immediately to improve on Kaṇāda's definition.

Vātsyāyana says that inherence relates two things when one can-

not occur without the other. The definitive form of this account is provided by Praśastapāda, who defines inherence as the relation between two inseparable (*ayutasiddha*) things related as located to locus. He further explains that "inseparability" means different things for noneternal entities than it does for eternal ones. Two entities, at least one of which is noneternal, are inseparable if all loci of one are loci of the other, while two eternal entities are inseparable if all motions that occur within one occur within the other.

Inherence relates qualities, motions, universals, and individuators to substances. It also relates universals to qualities and universals to motions. Finally, it relates composite individuals to the "parts" which are the composite individuals' cause.

Praśastapāda has a number of further interesting things to say about inherence. For one thing, he follows Kaṇāda in saying it is "marked through our knowledge," i.e., that its presence is in some manner dependent on our attending to it. Does this mean that the Nyāya-Vaiśeṣika realistic epistemology is jeopardized? We shall return to this question. For another, inherence has no universal inhering in it, nor any individuator individuating it. This is not surprising, since there is only one inherence. But Praśastapāda is also aware of the possibility of infinite regress, were inherence to be related to a universal inherenceness by inherence. Which leads us to a basic question: what relates inherence to its *relata*? Praśastapāda's answer is that it is related to them by the relation of identity (*tādātmya*). Furthermore, what happens to inherence when its *relata* are destroyed or disappear? According to Praśastapāda inherence is unaffected. It may be likened to a glue which glues together whatever inseparable things happen to fall into it. If there are no such things, the glue exists in potency, ready to glue but not, at the moment, gluing! Uddyotakara argues that if it were not independent of its *relata* in this way it could not do its job.

Praśastapāda thinks that inherence is not directly perceived, but is known through inference. This is consistent with his idea that it is somehow dependent on our knowing about it. But Uddyotakara and the Naiyāyikas generally hold that inherence is directly perceptible. Jayanta and Bhāsarvajña are equally explicit about it, although the latter characteristically differs in details, holding that inherence is only sometimes perceptible. The commentators on Praśastapāda mention the view that inherence is perceptible as the view of "others," and scholars say that this is one of the few differences between the Vaiśeṣika and Nyāya systems. Vallabha is apparently trying to adjudicate this discrepancy when he argues that,

though inherence is not perceived, it is inferred as closely involved in judgments of perception and so seems to be perceived because of this involvement. Faddegon compares the Vaiśeṣika theory of relations with that of certain 19th century philosophers such as Sigwart and Windelband, who divide relations into 3 sorts: (1) reflective relations, produced by mental classifications, (2) constitutive relations, which are in the things themselves, and (3) modal relations, relating our ideas and feelings and their contents. He says that Vaiśeṣikas thought inherence was a reflective relation, while Mīmāṃsakas, for example, took it as constitutive.[5] However, despite what Praśastapāda says about inherence being dependent on our knowing, I think Faddegon is mistaken in attributing to Vaiśeṣikas the view that inherence is mind-dependent in the sense that European logicians had in mind. There are various ways in which an entity may be mind-dependent, and not all of them are inconsistent with direct epistemological realism.

Certainly our philosophers did hold that inherence not only related objects known by us, but also entered into the relations between our knowing apparatus and its objects. Uddyotakara lists 6 different kinds of relations between the sense organs and their objects, one of which is inherence, another being the qualifier-qualificand-relation mentioned earlier. The rest of his 6 are direct contact and 3 indirect relations involving inherence and contact in combination.

II. *Other Relations: Contact, Self-Linking Connectors*

Besides inherence, relations between individuals within the Nyāya scheme boil down to contact, self-linking connectors, or some indirect relation combining those three. If difference is to be counted a relation, it should be added too.

Contact (*saṃyoga*) is one of the qualities, and we shall discuss it in greater detail. Here we need only note that it is capable of relating two substances at least one of which is material (*mūrta*). Given two such substances, contact is a quality of an ordered pair of them, inhering in it (the pair) as any quality does in the substance it is a quality of.

Disjunction (*vibhāga*) is also a quality, inhering in pairs of individuals which (individuals) have just parted from contact with each other. Separateness (*pṛthaktva*) is yet another quality which may reside in pairs of separate substances. Still another is number (*saṃkhyā*), at least those numbers higher than one.

Otherness, i.e., difference in nature, is construed as a variety of

absence, the seventh category. We shall have a closer look at it subsequently.

All other relations are either complexes of the simple ones, or are instances of self-linking connectors (*svarūpasambandha*). The theory of these relations is worked out in great detail in Navya-nyāya. There is little attempt by the classical philosophers of the school to work out such a theory in any systematic way. But several such relations have an important place in the system's defense of certain fundamental theses.

We noted in passing above that the relation between knowledge and known (called qualifier-qualificand-relation) may have been the earliest self-linking connector. Another case which gets regular recognition is the relation between an absence and its "counterpositive," i.e., the thing that is absent. For example, *absence of pot* is an individual, the nonexistence of a certain pot—or of pots in general. There is no such thing as pure absence —absence of everything or absence of nothing in particular. Every absence has a counterpositive, something which is absent. Here the counterpositive is the particular pot—or the universal "potness" if the absence is of pots in general. But what is the relation between an absence and its counterpositive? Is it inherence, or contact, or what? These scholastic sounding questions might not be raised by the Naiyāyikas themselves, but are caused to be raised by critics of the system, especially of that part of it which pertains to absences, which play an important role in Nyāya-Vaiśesika. And since they are caused to be raised, e.g., by Buddhists, the Naiyāyikas feel they must answer them. The answer is that an absence needs no further relation to relate itself to its counterpositive, that is to say, it just *is* that absence, of that particular thing and no other. It did not get that way in dependence on something else, though our having noticed it at all no doubt had a cause, and the pot may have been removed or destroyed by causal factors. But its *nature* is not dependent on something else, and that is why it is its own connector.

Similarly, when the question of the relation between inherence and its *relata* is raised, as it was by Śaṃkara and others (not to speak of Bradley), this same answer is given. There is no infinite regress, for while two inseparable things need inherence to be related to each other, inherence just *is the* sort of thing which relates inseparable pairs of entities of appropriate kinds.

Still another use for self-linking connectors was apparently emphasized by Trilocana, who found himself being asked, in connection with the theory of inference, what the relation was between two

universals one of which "pervaded" the other. Pervasion between universals is the key to the answer to the problem of induction, according to Nyāya; clearly it is important to allay any suspicions of a regress here. Trilocana appeals to a connection he calls *svābhāvikasambandha*, a natural relation between the universals.

Praśastapāda, we noted, referred to this kind of relation as "identity" (*tādātmya*). Strictly speaking, identity cannot be a relation within the system, since the system may contain no two identical things, in consonance with the principle of extensionality. And indeed formal relations, like identity and difference, do *not* occur as individuals in the system. A relation must relate two distinct things, and it must be distinct from them. But must it be distinct from *each of them*? Apparently not, for a self-linking connector is precisely one thing *x* relating itself to another, *y*. If we are to say there are three things here, *x*, *y* and the connector, we shall have to say that, though the connector is not different from *x*, it is different from *y*, thus, it is a distinct thing from its *relata*. Later on the Navya-naiyāyikas puzzled over some of the implications of this.[6]

III. *Causal Relations*

Among the sentences needing accurate systematic translation, sentences about the causes of things are perhaps the most important of all. Since the point of philosophizing is to prepare the way for liberation, it is a crucial part of the philosopher's understanding that he understands the causes of bondage, and, therefore, the causes of liberation.

The Naiyāyika views causation as a relation between individuals, not solely between events. However, some individuals are momentary; but not all are. On this last point Nyāya jousts at length with the Buddhists, culminating in Udayana's attack in his *Ātmatattvaviveka*. Some scholars trace this polemic all the way back to the *sūtras*. It seems unlikely, however, that Kaṇāda and Gautama were concerned so much with Buddhism as they were with Sāṃkhya, which was the most influential tradition of their period. Nyāya-Vaiśeṣika has in common with Sāṃkhya the conception that there are individuals which are not momentary but continuants; they differ, however, on the relation between continuants which are causes and those which are their effects.

To understand the development of the Nyāya theory of causation we may first inspect its fully developed form, as we get it in Udayana, whose treatment is accepted as definitive by practically all subsequent Naiyāyikas, including those of the new school.

The causal factors involved in the production of an effect are usually quite numerous, and it is only the full collection of factors (*sāmagrī*) which is a sufficient condition for the production of the effect. When that full collection is operative, the effect arises. The effect is not one of those causal factors: the effect is not included within the cause, since new features arise which are not found anywhere within the causal factors or at any rate not in the particular combination in which they are productive. Among the several factors which make up the full collection some will appear more prominent to the observer than others. These others may be referred to as "accessory" causes, but their presence is just as necessary as the more prominent ones.

Indeed, the members of the collection are each necessary conditions. Plurality of causes—more than one sufficient condition for a single effect—is unreal. Therefore, the arguments of others, e.g., Mīmāṃsakas, that a proper explanation of causality involves the postulation of a special category of power or causal efficacy (*śakti*) may be dismissed. Furthermore, certain Buddhist terms meaning "efficiency" can be construed just to mean the presence of all the accessories; thus the efficiency of an event (Buddhists hold that *only* events have efficiency) consists in its being accompanied by the other factors necessary and sufficient to produce an effect.

Naturally, only noneternal things can be produced and so become effects of causes. Both eternal and noneternal individuals may be causal factors. However, Udayana holds that causality is a relation between universals, not particulars. He is even willing to admit causality as a special additional category, although he does not insist upon it. He defines causality as "being a universal which is regularly connected with an earlier time (*pūrvakālaniyatajātīyatva*)," which amounts to saying that the relation between cause and effect is a relation of temporal precedence together with constant conjunction. The Naiyāyika interprets "constant conjunction" as a relation between properties. Whereas in English we should say that a causal relation is present when it is true that "whenever a thing of type *A* occurs, a thing of type *B* occurs" Udayana interprets this as a relation between the properties *A-ness* and *B-ness*, in accordance with his ontological predilections.

A generally accepted Nyāya classification divides causal factors into 3 varieties. (1) First, there is what is called the "inherence cause" (*samavāyikāraṇa*). When Kaṇāda talks about a cause he usually has this kind of causal condition in mind. Thus, a substance is the inherence cause in the production of its qualities and motions, since the effects inhere in the substance. Furthermore, when a pot

is produced from pot-halves or a cloth from threads (two favourite Nyāya-Vaiśeṣika examples) the pot-halves and the threads are respectively the inherence causes of the pot and the cloth because the latter, which are the effects, inhere in the halves and the threads. It is important to recognize that the Naiyāyika does not hold that the halves or the threads are the material out of which the pot and the cloth are respectively composed. Such an account involving a "material cause" (*upādānakāraṇa*) is Sāṃkhya's, not Nyāya's.[7] Eternal substances may be inherence causes, as well as noneternal ones; e.g., selves are the inherence causes of their cognitions and feelings.

(2) A second variety of cause is called merely the "noninherence cause" (*asamavāyikāraṇa*). An individual which is not inhered in by the effect, but which is "closely related" (*pratyāsanna*) to the inherence cause, may function as a noninherence cause. For example, in the production of a pot from pot-halves the contact between the pot-halves, which inheres in the pot-halves, is the noninherence cause of the pot. Or when a cloth is being woven, the colour of the threads, which inheres in the threads, is the noninherence cause of the colour of the cloth. The examples make it clear that the "close relation" is a matter of degree. Vyomaśiva divides noninherence causes into two kinds: (a) "small" (*laghvī*), where the noninherence cause inheres in the same substance that the effect inheres in—e.g., the contact of the pot-halves, or one sound (wave) which precedes the next sound (wave), since they both inhere in the one *ākāśa* : (b) "big" (*bṛhatī*), where the noninherence cause inheres in the same substance that the effect inheres in, e.g., the colour of the threads. But the "close relation" may be still looser. The *Daśapadārthaśāstra* counts the internal organ as the noninherence cause of the psychic qualities of that self with which it is in contact. Many individuals belonging to the second category — the qualities —may be noninherence causes, although according to Praśastapāda and his commentators some of them are not causal factors at all.

(3) The first two varieties of causal factors are together necessary but not sufficient to produce an effect. Furthermore, in some cases of causation the first two sorts of factors are entirely absent. For example, in the production of absences — the destruction of a middle-sized substance like a pot, for instance — since the effect does not inhere in anything there is neither inherence nor noninherence cause. So the third variety of causal factor is in many ways the crucial one, on the authority of the Naiyāyikas. It is called the "instrumental cause" (*nimittakāraṇa*).

Clearly all other causal factors not included in the first two varieties must be included here if the classification is to be exhaustive. So, for example, in producing a pot from pot-halves the presence of a potter at the appropriate time and place, the absence of any obstructions to his completing his task, as well as the specific movements which he makes his hands and stick go through, are all to be included within this third variety. So the Naiyāyikas further subdivide this category into two: (a) general instrumental factors (*sādhāraṇakāraṇa*), like the presence of time, place, and absence of obstructions, and (b) specific instrumental factors (*asādhāraṇakāraṇa*), including the particular movements of the potter's hands and stick as well as any qualities which are specific to just this kind of effect, such as number in counting, size in measuring, etc.

We should also note a rather honorific word used for "(causal) condition *par excellence*." The general word for "cause" in Sanskrit is *kārana*; this special word is *karaṇa*. What is the *karaṇa* or "condition *par excellence*" of an effect? Several interpretations are found offered by our writers. One, suggested perhaps by Uddyotakara, has it that the supreme cause is the most effective cause, the event which immediately precedes and brings about the production of the effect. Sometimes this event is called the "operation" (*vyāpāra*). Thus, in chopping down a tree the last contact of the axe with the tree before the tree begins to fall might be considered to be the causal condition *par excellence*. In this interpretation this condition is an event. A second view is proposed by Jayanta Bhaṭṭa: he holds that the honour of being called the supreme cause can only properly be awarded to the whole collection of causal conditions —the sufficient condition itself. His view is pretty well ignored by subsequent Naiyāyikas, however. A third view, popular in Navya-nyāya, is that the cause *par excellence* is not the event which immediately precedes the production of the effect, but rather the individual whose operation constitutes that event. Thus, in our example it is the axe which is the cause *par excellence*, the *karaṇa*.[8]

To this picture of the developed Nyāya-Vaiśeṣika theory of causal relations we may next append a few historical comments. As was mentioned, the major opponents of our philosophers on causation were the Buddhists on the one hand, Sāṃkhya on the other. Sāmkhya views causality as a relation among continuants, as Nyāya does, but conceives the relation differently. The Buddhists reject continuants *in toto* and view causation as a relation among events.

Sāṃkhya conceives that causality is a connection between a cause which contains the effect in a potential state, and the effect which is

the same thing now "manifested" (*vyakta*), i.e., apparent to our inspection. Favourite examples are the oil of the sesame seed, first contained within the seed and then spilled out when the seed is broken open, or, with a somewhat different thrust, the production of curds from milk. In both cases the effect is contained in the cause. Sāṃkhya generalizes this conception of causation to the relation between the unmanifest matter (*prakṛti*) which is the ultimate cause of all worldly effects, and its transformations into the manifest mental and physical modes with which we are acquainted in life.

Gautama is aware of the view that change is modification of already existing stuff, rather than replacement of something old by a new thing. Oddly, he discusses this in connection with a grammatical point about the change in suffixes due to variation of a stem in syntactical function. The related point about whether the sounds constituting the words are manifested or produced is a topic which goes far back into the earliest history of Indian thought. The Naiyāyikas hold that sounds are produced in the substance called *ākāśa*. Sounds are qualities for Nyāya, and are produced in a series, one being destroyed as the next arises. Others, notably Mīmāṃsakas but also including Sāṃkhyas, held that sound itself is a substance, and that different sounds are modifications of this eternal sound-stuff. Many of the arguments about the theory of sound turn on this difference among the systems over causality

Sāṃkhya writers such as Īśvarakṛṣṇa offered several arguments in favour of their view that the effect is contained in the cause. Among the most important of these are the following. (1) The effect must exist in the cause, since a nonexistent thing cannot be produced. This corresponds to the ancient maxim of classical Western philosophers, *ex nihilo nihil fit.* (2) What prevents a cause from producing anywhere and all the time, or in any random fashion you please? There must be some factor which limits the effectiveness of the cause to producing its effect at the proper time and place, and this factor can only be the presence of the effect itself in potency. (3) A given type of effect can only be produced by a certain type of cause, e.g., milk produces curds, but other liquids cannot. This shows that the peculiarity of that liquid which is competent to produce curds is due to the presence within it, but not in the other liquids, of the effect in its potential state.

The Nyāya attitude to these arguments, as exemplified in Śrīdhara's *Nyāyakandalī*, is as follows. The first argument is in the nature of an undefended pronouncement. Who says a nonexistent thing cannot be produced, and why? Experience shows us that nothing

is commoner than production of previously nonexistent things from causal factors none of which can be shown to "contain" the effect within them. If the effect already exists, why can it not be produced for inspection? Śrīdhara professes not to understand the notion of the existence of the effect "in potentiality." How is this different from "notexistent yet," i.e., from the effect's nonexistence at a time prior to its production?

To take the second and third arguments together, Śrīdhara admits that an effect regularly shares some attributes with its cause; but it does not share *all* its attributes with the cause. The Sāṃkhyas apparently cannot conceive how else the peculiar ability of milk to produce curds can be explained, but the Naiyāyika finds the explanation readily enough in the notion of conditions which are individually insufficient but jointly sufficient to cause the origination of the effect. And the two theories are not as far apart here as one might suppose. For Sāṃkhya readily admits that something changes when milk produces curds : certain qualities at least arise—sourness, solidity—which were absent in the milk. And the Naiyāyika admits that the inherence cause—the milk —shares a number of qualities (e.g., a certain chemical composition) with the curds. Both assert that in order that milk produce curds there must be some extraneous causal conditions present which determine that the causal change takes place now and here. Sāṃkhya does not choose to call these extraneous factors by the name "cause," and Nyāya does.

Śaṃkarasvāmin presents a counterargument of some interest. It is a matter of experience that one thing can produce several different effects, but it cannot do so unless some of the other circumstances differ. These differing circumstances are the Naiyāyikas' "accessories," and this shows that the Sāṃkhya account is inadequate in that it fails to explain certain observed facts. Trilocana, thinking along the same lines, distinguishes two kinds of causal efficiency (*sāmarthya*): an internal kind, stemming from the entity we call the "cause" and which within the system is merely one of the causal factors, and an external kind, stemming from the accessories. What is being proposed, then, is that the ordinary, common-sense use of the term "cause," which is notoriously unclear, be abandoned within the system and replaced by the clear-cut notion of a totality of causal conditions which are jointly sufficient for production of the effect. Then to connect the resulting theory with ordinary speech we may resort to the language of "accessories" and the distinction Trilocana proposes.

Viewed in this light, the refusal of the Naiyāyika to limit the term

"cause" to the inherence cause, as Sāmkhya does, becomes not merely a verbal matter but one of deep philosophical importance. Nyāya claims that its way of speaking about causes within the system satisfies the criteria of systembuilding better than its alternatives; this is by no means a verbal claim, but one crucial to the success of the system.

The conception of the *sāmagrī*, or totality of causal conditions, is also the main element in Nyāya's answer to Buddhist arguments. However, the matter is complicated by introduction into the discussion of causality of the closely related, indeed inseparable, question of the viability of an event ontology.

Kaṇāda seems not to address any arguments to Buddhists, and it is not at all clear that Gautama is concerned to refute them in any detail. He does make reference to one of the major Buddhist arguments for their thesis that only events exist. This is the argument from the unintelligibility of the past and the future, and therefore of the notion of a continuant, of something which did exist and will go on existing. Gautama's reference suggests that he does not fully grasp the implications of that argument, since his answer is merely that we can infer the reality of past and future on the ground of the admitted reality of the present. The nub of the Buddhist's argument is that the notion of "present" is itself dependent on the notions of past and future; thus, temporal distinctions are "constructions" and temporal succession is not real. Vātsyāyana's comment on Gautama's passage helps some: it is our direct experience of process which enables us to infer the reality of time. He clearly recognizes that the Buddhist's argument is weighty if they are allowed to treat motion as the successive occupation of points in space in a series of discrete moments. This discussion nicely reflects its parallels in Zeno and Russell.

The first explicit reference to the Buddhist's thesis of "momentariness" (*kṣaṇikavāda*) among our writers occurs in Vātsyāyana, who introduces this position in passing during a discussion of Sāṃkhya theories. But it is Uddyotakara who first develops extensive polemics on this point.

Uddyotakara's arguments are as follows: (1) Buddhists accept *karma*, transmigration, and liberation; they have a theory of value much the same as Naiyāyikas do, except that they tend to internalize the sources of bondage to a greater extent. Thus Buddhists make much of the notion of "seeds" (*bīja*) or "traces" (*vāsanā*) which carry out the force of *karma* previously earned on subsequent thoughts and actions. But the notion of a trace is incompatible with the Buddhist theory of momentariness, since on that theory each momen-

tary event is self-contained and cannot pass anything on to a subsequent event. Furthermore the explanation of the facts of memory and recognition depends on the postulation of traces; thus the Buddhist ontology is inadequate as a basis for system making. (2) Buddhists talk in subject-predicate language, and thus implicitly accept the view that there are substances and qualities, or at the least that there are loci in which other things reside. E.g., the locus of the cause must be continuous with the locus of the effect, as we find it so in experience. Thus an event ontology is inconsistent with the Buddhist's choice of language. (3) What does "momentary" mean, anyway? And in particular, how can the Buddhist assert both that momentary events are real and also that time is unreal? For a "momentary" event is presumably one that lasts for a moment and no more, but this makes appeal to the notion of a "moment" and so to temporal distinctions.

Though these arguments are repeated by later writers it must be admitted that at best they produce a standoff with the Buddhists, and at worst they represent Uddyotakara in an uncharitable light. The first argument is developed at length by Vyomaśiva and Udayana, but it is not clear that Nyāya-Vaiśeṣika is any more a believer in real process than the Buddhist. Both, after all, hold that a variety of causal conditions combine to produce the effect; it is a more complex matter than Uddyotakara suggests to show that causality is inexplicable in an event ontology. The last two arguments are, in the context of system building, quite unfair, since they assume that the Naiyāyika, but not the Buddhist, is to be allowed to ignore common usage in favour of technical terminology. The question of how we ordinarily talk is precisely one of the matters which is not to be allowed to determine the structure of a philosophical system. If Uddyotakara applied his arguments to himself he would be unable to appeal to a large number of his pet categories. Granted, it is proper to ask the Buddhists for explications of their technical terms, to ask them for example how in terms of their choice of basis they propose to explain the facts of memory, causation, and so forth. And Uddyotakara's critique did force the Buddhists to expatiate on these topics.

As the theories of Dignāga and his followers became more complicated the character of Nyāya arguments against momentariness changed. Certain arguments are directed to peculiar theories of individual Buddhists; witness Jayanta's argument that Dignāga's thesis that the instrument and result of knowledge are identical is inconsistent with momentariness, and Śrīdhara's argument against Dharmottara. Others are of more general force.

One main line of argument for the Buddhists is this : the mark of a real thing is that it exerts causal force, has efficiency (*arthakriyākāritva*). The Buddhist claims that only events are effective causes. The point of this claim is that eternal entities, such as universals, are *not* things which are seen to produce effects. The Buddhist postulates two kinds of elements—momentary particulars (*svalakṣaṇa*), which are the only "reals," and universals (*sāmānyalakṣaṇa*), which are not real but rather generated by our conceptualizing apparatus for the purpose of classifying and talking about the particulars. The Nyāya answer is that, though universals and other eternal entities may not produce effects by themselves, they enter into totalities of causal conditions in essential ways. Thus, properly understood, causal efficiency belongs to any causal factor, not only to events. Furthermore, the Naiyāyikas argue, the phenomenon of gradual change could not be explained if continuants are not admitted among the causal factors.

Another argument that appears frequently in Buddhist writings is this. Noneternal things are, by the admission of the Naiyāyikas, subject to eventual destruction. Now since this is a necessary characteristic of every noneternal thing it is not contingent upon causes, argues the Buddhist. Not depending upon the concurrence of causal factors at any particular time, there is no reason why destruction should not occur immediately upon the coming-to-be of the thing. Thus, momentariness is proved, everything being destroyed as soon as it arises. Udayana treats this argument at some length. He explores 5 distinct ways of interpreting the Buddhist claim that destruction is necessary and so uncaused, and finds each interpretation to violate criteria of successful system making.

Another aspect of the problem arises from the question how the Buddhist proposes to account for the regular relation between a given kind of cause and the appropriate sort of effect. Why shouldn't any event be the cause of any other subsequent one ? The Buddhists postulated a special component of the causing events called *kurvadrūpa* which is supposed to accompany an event which then produces the effect immediately without delay. The point of this theory is to account for the qualitative relation between cause and effect without having to admit a continuant "within" which the momentary events occur and whose nature explains the qualitative relation. Udayana points to the ad hoc character of this theory, and to its failure to accomplish explanation, by asking how the Buddhist can be sure that the proper sort of effect is around to be produced by the *kurvadrūpa*. The fact that a seed has the capacity to produce a sprout of

a certain kind does not guarantee that a sprout of that kind will be forthcoming when the capacity is present in the seed. To explain that, some additional hypothesis is needed. Udayana avers that the only one which will do is that the seed grows into the sprout by gradual replacement of some qualities by new ones.

The Buddhist finds the notion of a continuant which has the capacity to produce an effect now and lacks it at a later time to be an inconsistent one. Udayana explains that "capacity" in the Nyāya sense is not an individual like the Buddhist's *kurvadrūpa*; rather, it is the presence of all the accessories which, together with the continuant, constitute the sufficient condition for the effect in question. This question of a distinct individual constituting the power or capacity of a cause is, however, not peculiar to Buddhism. It is found in Purvamīmāṃsā and even in at least one early Vaiśeṣika treatise, Candramati's *Daśapadārthaśāstra*.

Candramati's view is that there are two additional kinds of individuals, one called causal efficacy (*śakti*), the other causal inefficacy (*aśakti*). Causal efficacies inhere in substances, qualities, and motions, and are required for these individuals to operate as causes; causal inefficacies also inhere in the same three kinds of individuals and function to obstruct causation. He also thinks that these individuals can be directly perceived, but that the perception of them does not require our sense organs to make contact with the objects in which they inhere; the perception of them, then, is a kind of mental perception.

Candramati, however, is alone among our philosophers in accepting these kinds of individuals. Indeed, none of the others know of his espousal of causal efficacies, or if they do, they are careful not to let on. The theory of causal efficacies is always attributed to Mīmāṃsakas, especially to the Prābhākara branch. Śaṃkarasvāmin is the first known among our philosophers to propose the standard reaction to the causal-efficacy theory, which is that causal efficacies are unnecessary since the *sāmagrī* just is the causal efficacy—that is, a thing "has causal efficacy" when all the accessories are present, and lacks it when some of them are absent. But this explanation apparently did not satisfy the Mīmāṃsakas.

As Jayanta presents the Mīmāṃsā complaint, it is this. Sometimes, even though all the factors comprising the *sāmagrī* are present, the effect does not occur because, e.g., someone has pronounced an incantation. Jayanta's answer is simple: if so, all the factors are *not* present after all. The Mīmāṃsaka, however, wishes to explain magical spells by postulating a causal efficacy in the continuant which

is blocked by the charm. Fine, says Jayanta, only you do not need a new individual to be the causal efficacy which is blocked, and it need not be supposed to be "in" the continuant either. A much simpler explanation is just that one of the causal factors which make up the sufficient condition for the effect in question is *absence of charm.* When a charm is spoken, this causal factor is precluded from occurring, and so no effect is produced.

Śrīdhara has the Mīmāṃsaka go on to a further objection: suppose someone chants a countercharm—then even in the presence of the charm the effect will be produced ! So *absence of charm* cannot be one of the causal factors, and the causal-efficacy hypothesis proves superior. Śrīdhara's answer is that if the case is indeed as described, then the causal factor is not *absence of charm* but rather *absence of charm or presence of countercharm.* Udayana, however, derides this answer of Śrīdhara's. It is impossible that both charm and countercharm are among the causal factors in the instance the Mīmāṃsaka describes, since the countercharm is supposed to destroy the charm ! Perhaps we should say that the factor is *absence of (effective) charm,* and construe the countercharm as one cause of the production of such an absence.

Incidentally, this discussion suggests one reason why the Nyāya-Vaiśesikas became more receptive to absences as their theory developed. Since their theory requires absences to be admitted among the causal factors—and the theory will not work without this admission—they had no choice but to add absences to their list of kinds of individuals. This category turned out to have all sorts of uses, as we shall see.

The second major argument[9] for adding a category of causal efficacy is that there is plurality of causes—fire can be produced in several ways, by rubbing sticks together, by focusing the sun' rays on some dry grass, etc. Now since, as Udayana emphasizes, causality is a relation among universals rather than individuals, causal efficacy is needed to explain how it is that these different causes all produce the same effect. Udayana answers that there can be no real plurality of causes, since inference from effects to their causes depends on their being only one kind of cause for an effect. The Buddhist depends on such inferences as much as the Naiyāyika, so he will not wish to adopt a theory which undermines them. As for the proper explanation of the apparent plurality of causes of fire, Udayana says that if one takes the matter at the level of the different causes, then we must suppose that each type of cause produces its particular kind of fire. Alternatively, if we consider these various individuals—the sticks, the jewel used to focus the rays, etc.—as

sharing one universal, namely *being the cause of fire*, then it is also all right, since the regularity of the relation between causes of fire and fires is unaffected by there being different kinds of causes and different types of effects. Udayana becomes very permissive at this point, in fact; he goes so far as to say that if one wants to he *can* admit an additional category of causality (*kāraṇatva*), and that this new category may be considered to be the old causal efficacy under another name. One may well wonder what the need was for all the argumentation if Udayana is going to adopt the opponent's view after all. However, Udayana's position is more subtle than one might guess. Part of the point of his attitude is that causality cannot be considered a proper universal since it violates one of the requirements of universalhood, crossconnection (*jātisaṃkara*). If one takes this requirement seriously one cannot hold that one universal *being the cause of fire* is shared by the sticks, the jewel, etc., and it is overly complex to hold that each is a distinct kind of cause. These considerations may lead one to postulate the new category.

We may conclude this discussion of causality in Nyāya-Vaiśeṣika with the problem which will seem paramount to Western-trained philosophers, namely, what is the character of the causal relation? Is it a necessary or a contingent relation? Under what conditions can we be assured that a genuine causal relation holds, and are these conditions at least partially due to our habits of thinking, our conceptual classifications?

The importance of the distinction between necessary (a priori) and contingent (a posteriori) relations comes into modern philosophy through certain steps which form a part of the idealist critique of naive realism as urged by Berkeley, Hume, and Kant. For example, in Hume we find a distinction between "relations of ideas" and "matters of fact" which paves the way for Kant's "analytic a priori" and "synthetic a posteriori." And Kant locates causality among the categories of the understanding which make human knowledge possible, a set of classificatory principles which order the raw material of experience.

Some of these distinctions have analogues in the Buddhist philosophy which our Naiyāyikas were concerned to refute throughout most of the period we are treating. It is tempting to assume that, since the Buddhist way with certain matters parallels that of Hume and Kant, it is possible to attribute to Buddhists other related "empiricist" doctrines of a Humean or Kantian sort, doctrines which in fact the Buddhists did not admit. A full treatment of this matter will have to await the volumes of this series which deal with Buddhism, but a

few points are pertinent in order to gauge the position of Nyāya-Vaiśeṣika on the questions introduced above.

One major difference between Indian and Western empiricism is that the Indians did not know, or at any rate paid very little attention to, the distinction between "formal" and "material" truths which forms so influential a part of the Western philosopher's Aristotelian heritage. Inference was not pictured as a way of deducing statements from other statements on the grounds of their formal character or logical structure; rather, it was held to be the method of scientific inquiry. This point will be developed when we turn to the Nyāya theory of inference. In anticipation of fuller treatment, however, we may begin an answer to the question "Is causality necessary or contingent in Nyāya-Vaiśeṣika?" by remarking that if by "necessary" is meant the kind of relation which is taken to relate two statements or ideas by virtue of deductive or formal character, then at any rate causality is not a necessary relation in that sense. Causality is a relation which links empirically real entities in whatever world there is, and this is true both for Naiyāyikas and Buddhists, at least insofar as the latter admit any empirical world at all. In all cases of causality it is *thinkable* that the cause should occur without the effect occurring: thus the relation is not a logical one in the epistemologically loaded Western sense.

Yet, of course, causality *is* a necessary, and not a contingent, relation, in the sense that there can be no counterinstances. It must be the case that whenever the *sāmagrī* occurs the effect occurs; otherwise it is not the sufficient condition of that effect. Thus, invariable antecedence is a necessary condition of causality. But both Buddhists and Naiyāyikas hold that it is not sufficient.

If we follow Stcherbatsky's treatment of Buddhist logicians, we can find a very Kantian view in the writings of Dharmakīrti. "Causality is a relation superimposed upon reality by our understanding."[10] According to Dharmakīrti all necessary relations are of one of three kinds: relations of contradiction, of identity, and of causality.[11] In Dharmakīrti's world view everything is related to everything else either by being opposed to it or being causally related to it. Stcherbatsky likens this to the Kantian notion of the synthetic a priori. The relation between two things one of which is cause, the other effect, is not "analytic," since the things are two; yet it is a priori true that the first thing has an effect and that the second has a cause. Thus, the Buddhist of Dharmakīrti's sort adopts a kind of uniformity-of-nature principle, known not by experience but in whatever fashion the *pratītya-samutpāda* or chain of twelvefold causation is known. Just how closely

we can liken this view to Western analogues depends somewhat on just what the Buddhist's source of insight is taken to be. If it is "reason" then he can be assimilated to "rationalism" in contrast to the Naiyāyika's "empiricism," but it seems difficult to picture the Buddhist's method of transcendental knowledge as rational.

In any case, the Naiyāyika has a different reason for thinking that invariable antecedence is not sufficient for the establishment of a causal relation. His reason lies in the patent fact that we can never know that all the evidence is in for any empirical claim, and in particular for the claim that two things are related as cause to effect. We can never be sure that a hitherto undetected variable is responsible for our judgment that *x* causes *y*. Not all cases of invariable antecedence are causal; some are merely accidental.

In Navya-nyāya we find detailed treatment of a notion which appears toward the end of our period but not in its later sophisticated form. That is the identification of an additional requirement of a cause, over and beyond its invariable antecedence to the effect: it must be *ananyathāsiddha*, "essential" or "relevant." "An invariable antecedent is irrelevant if knowledge of it is not required for any anticipative knowledge of the origination of the effect".[12] In Keśava Miśra's *Tarkabhāṣā* 3 examples of irrelevant antecedents are offered: (1) the colour of the threads which combine to form the cloth are irrelevant, i.e., not to be included among the factors comprised in the *sāmagrī*; (2) the potter's father is irrelevant to the production of that potter's pot; (3) a donkey which happens to stray by when a particular pot or cloth is produced is not a relevant causal factor. Later the kinds of irrelevancy increase to 5.[13]

But even when we exclude the irrelevant factors we can never be sure we have got a cause and not an accidental antecedent, as can be seen by thinking about the definition of relevance offered above. For what we need to anticipate the origination of the effect depends upon experience; we may think we are able to anticipate the production of *x* whenever *y* and *z* are found, but one day *y* and *z* may occur without *x*, and we shall begin again to search for the additional condition which we have been hitherto unaware of. Vācaspati Miśra enunciates the fallibilistic thesis of Nyāya straightforwardly.

This, however, forces us to take another look at the question of the plurality of causes. We saw that Udayana says there is no plurality of causes. Fallibilism says that we can never be entirely sure that we have identified the cause of a given entity. These are not ultimately incompatible assertions, but they raise this question: How can Udayana be so certain there is no plurality of causes? Does

he have insight of the sort the Buddhist counts on to assure him that all positive relations are causal? I think Udayana does not suppose he has; rather, examination of his passages in *Nyāyakusumāñjali* pertaining to plurality of causes convinces me that he is proposing that we adopt as a principle an attitude which leads us to continue to seek for a single cause for each effect. "There is no plurality of causes" is for him a heuristic maxim amounting to "keep looking for causes as long as you have apparent plurality."

Along these lines we can also hope to make sense of the Nyāya belief in the presence of causes for the things, e.g., in Gautama's chain. Both Buddhists and Naiyāyikas need to believe that there are causes of the sources of bondage, as we have seen. Buddhists claim to know this by a kind of insight. How do Naiyāyikas know it? Well, they do not if by "know" one means know for certain. Yet, they do not have to subside into skepticism for all that, any more than the Western scientist does. The Naiyāyika's knowledge that the things that matter have causes is based on past success in finding concomitances. To be sure, it remains possible that any given concomitance, hitherto supposed to be an invariable concomitance, will turn out not to be so. But the probability remains that conditions found so far to be relevant, invariable antecedents do, in fact, constitute the (one) cause of the effect in question, and this probability does not require any certainty to ground it.

5

SUBSTANCE

I. Categories

In the foregoing chapter we took occasion at one point to glance briefly at the Vaiśeṣika list of 7 categories: substance, quality, motion, universal, individuator, inherence, and absence. What is the reason for admitting only 7 categories, and why just these 7? The answer lies in the necessities of the constructive enterprise to which I have alluded. Likewise, when we come to look at the list of 9 kinds of substance, 24 kinds of qualities, etc., similar questions are raised and the answer lies again in the manner in which the system can be built up. In order to illustrate this I shall in the next few pages suggest how one might start rigorously to generate the system from definitions utilizing the basic relations studied in the preceding chapter. I do not intend to take this very far, since the purpose of clear elucidation, if the reader is not acquainted with modern symbolic logic, is not served by such a technical presentation. Nevertheless, I think it is instructive to see how one might proceed to study the system in a rigorous fashion.[1]

Our sole primitive will be the self-linking connection between a locus and what is located there.[2] Which individuals are loci of which kinds of individuals, and located in which other kinds of individuals, will become clear as the system is developed. One may view each definition of a kind of individual — i.e., of a "category" —as constituting an assignation of the role of locus or located with respect to other kinds of individuals. It would, also, be possible to analyze further the locus-located relation by utilizing the notions of "qualifier" and "qualificand" and tying the question to the way the language works, but I shall not attempt to develop this here. Short-cutting that approach, let us merely symbolize the locus-located relation, a special case of self-linking connection, as "*La, b*," where the first member (*a*) is what is located and the second member (*b*) is the locus.

Utilizing L, we can now attempt to define inherence. I shall state a definition and then discuss it.

$$D1 : I_{a,b} =df. (x) [L_{b,x} . \supset (y) (L_{a,y} . \supset L_{y,x})]$$

"I" is the two-place predicate "inheres in." The definition is intended to capture the notion of inseparability as it applies in the normal case, where one or both of a and b are not eternal individuals.[3] As we saw, not all Naiyāyikas admit that inherence relates eternal individuals. For those who do, like Praśastapāda, we might develop two alternative definitions, but I shall not make the attempt here. What $D1$ says in effect is that two individuals a and b are such that a inheres in b if and only if all loci of b are loci of a, which was the required idea to be captured.

Now we turn and define the 7 categories.

A peculiarity of substance is that it is the only kind of individual which can be inhered in without also inhering in something else. The difficulty about using this feature as an element in the definition is that although *not being located* is a sufficient condition for being a substance, it is not also a necessary condition, since some substances do inhere in something else, albeit only in other substances.

We cannot arrive at a definition in any very straightforward way. For example, one might suppose that one could say that a substance was any individual which either does not inhere in something else or, if it does, the thing it inheres in does not inhere in anything else or, if it does, etc.... But that will not do, since it would apply to a quality as well. A quality inheres in something which inheres in something which does not inhere in anything. So that line will not work.

In order to arrive at a satisfactory definition of substance we shall have to go at the matter in a more devious way, one which, however, was implicit in the development suggested in the previous chapter. We note that *contact* is a relation which connects substances only. If we first define *contact*, we can easily define substance, for every substance is in contact with something, namely *ākāśa*.

Defining contact is not terribly straightforward, either. But here is a way of getting at it. Contact is, according to Nyāya-Vaiśeṣika, a quality which inheres in two substances under conditions such that the product of the two individuals is greater than zero but smaller than either of the two (where "product" is here being used in its mathematical or set-theoretical sense[4]). That is, the product of two individuals is the individual (if any) which exhausts their common content. Two individuals are not in contact at all if they have no common content (i.e., if their product is zero), and they are not

(for this system) *two substances* unless their product is less than each of the two.[5] Therefore, we can suggest defining contact as follows:

$D2a$: $C_x =$ df. $(\exists a)(\exists b)(I_{x}, [a, b] . ab \neq 0. ab < a. ab < b)$[6]

D2a is not quite satisfactory, however, since it overextends to include, e.g., a universal property which inheres in both *a* and *b*. I.e., suppose *a* and *b* are two atoms of earth; then *earthness* is an individual which, when taken as a value of *x* in *D2a*, satisfies the definition even though *a* and *b* may not be in contact at all. We can add a qualification so as to take care of this, however. We specify that any value of *x* in the definition of contact must be such that something inheres in it. Since a universal is something in which nothing inheres, this effectively excludes universals as values for *x*. Thus, the full definition of *contact* is :

$D2$: $C_x =$ df. $(\exists a)(\exists b)(\exists y)(I_{y,x} \cdot I_{x},[a,b] \cdot ab \neq 0 \cdot ab < a \cdot ab < b)$.

Having thus defined contact, it is easy to define substance.

$D3$: $S_a =$ df. $(\exists x)(\exists y)(C_x \cdot I_x,[a,y])$

since every substance is in contact with something (*ākāśa*).

Moving on to *quality*, we note that qualities inhere in substances only. The difficulty about using this as a distinguishing feature of substances is that the same can be said of motions—they inhere only in substances as well. This indeed led Bhāsarvajña to propose that motions be treated as a kind of quality.[7] From the point of view of constructionism of the kind here being carried on, his proposal seems inviting. The alternative would be to define motion first and then get at the definition of quality by excluding motions. Formally, qualities and motions are very much alike; indeed, the main difference is that motions can inhere in certain sorts of substances only—that, at least, is what the main wing would say. Bhāsarvajña's point, however, is that the notion of motion depends on other notions such as occupying successively different points in space, notions which are usually traced to their causes which are qualities (namely, priority and posteriority).

Following Bhāsarvajña's suggestion, then, let us define a quality thus:

$D4$: $Q_a =$ df. $(\exists x)(S_x \cdot I_{a,x}) \cdot (y)(\sim S_y \supset \sim I_{a,y}) \cdot (z)(\sim (C_{a,z}) \cdot$
$(\exists w)(I_{w,a})$

That is, a quality is an individual which (1) inheres in a substance; (2) inheres in no thing that is not a substance; (3) is not in contact with any thing; (4) has something inhering in it. The third clause excludes substances which satisfy (1) and (2); the fourth clause excludes universals which satisfy (1), (2), and (3).

A proper definition of motion, in Bhāsarvajña's system, will come when the various qualities are distinguished from each other. It is

at least a necessary condition of an individual's being a motion that it inhere in material substances only, i.e., in those substances which are not ubiquitous, which have limited dimension. *Material substance* can be defined thus:

$$D5: MS_a = df. (\exists x) (\exists y) (C_{a,x} \cdot \sim C_{a,y} \cdot a \neq y).$$

That is, an individual *a* is a material substance if there are two substances one of which is in contact with *a* and the other of which, though not identical with *a*, is not in contact with *a*. A material substance is one which is capable of motion. However, if we wish to define motion in extensional terms we shall have to go at it in a more roundabout fashion, by first defining such qualities as priority and posteriority, along with such substances as space and time.

The fourth category comprises universal properties. Universals, as we have had occasion to note, do not have universals inhering in them, but this by itself is not enough for a definition, for the same can be said of individuators and inherence. Thus, we can define a universal as follows:

$$D6 : U_a = df. \sim (\exists\ ) (I_{x,a}) \cdot (\exists y) (I_{a,y}).$$

Universals are properties which inhere in something but do not have anything inhering in them. Individuators and inherence, on the other hand, do not inhere.

An individuator is an individual which is located in a substance which does not inhere in anything: It must also be such that nothing inheres in it.

$$D7: V_a = df. \sim (\exists x) (I_{x,a}) \cdot (\exists y) (S_y \cdot L_{a,y})]$$

The sixth category is that of inherence itself. We have not yet defined it; what we defined in $D1$ was the two-place predicate *inheres in*.

$$D8: I_a = df. (x) (y) [I_{x,y} \supset (L_{x,a} \cdot L_{a,y})].$$

That is, *a* is (an) inherence if it links two individuals which are related by the relation of inhering in. The old Nyāya view, as we saw, is that there is only one inherence, while later theorists like Raghunātha Śiromaṇi held that there are many.[8] Either view is compatible with the above definition, however.

The final category is that of absences. In Nyāya an absence is always an absence of something or other, and this something is called the "counterpositive" of the absence. Thus, we shall define a two-place predicate *is-an-absence-of*, a relation which connects an absence to its counterpositive.

$$D9: A_{a,b} = df. (\exists x) (L_{a,x} \cdot \sim L_{b,x} \cdot \sim I_{b,x} \cdot \sim C_{b,x}).$$

Here the value of *x* constitutes the locus of the absence. E.g., in the stock example "there is no pot on the ground," *a* = absence-of-pot, *b* = pot, and *the ground* is the value of *x*.

It is an instructive exercise to fashion definitions such as the above, and as a way of understanding what philosophical problems the Naiyāyika faces the exercise has value. Rather than continue to pile up definitions, however, I shall now revert to expository prose unclarified by symbols, hoping to have suggested by analogy in the last few pages the kind of rigor at which Nyāya definitions aim and the nature of the system which they are attempting to construct.

II. Substance.

The list of 9 kinds of substance, though it appears a hodgepodge without any particular order, is justified by the fact that all individuals satisfying *D*3 can be most economically brought under these 9 kinds. Some of our philosophers in later times even thought the list could be reduced further, as we shall see.

In the previous chapter we reviewed some of the arguments used by Naiyāyikas to justify the adoption of continuants rather than events as the elements of the system. These were to the effect that chopping the universe into momentary flashes violated certain of the criteria of successful system making. E.g., Uddyotakara argued that since the relevance of the system requires the possibility that a person now bound may become liberated later, the Buddhist denial of continuants and especially of the substantial self robbed the enterprise of its interest. I pointed out a possible criticism of this, that the Nyāya treatment of change no more admits real process than the Buddhist's. As we spell out the ramifications of Vaiśeṣika substantialist ontology the reader will be able to come to his own conclusion on this fundamental question.

We have already had occasion, at an early stage of construction, to distinguish "material" substances from immaterial ones (*D*5 above). The material substances are those capable of motion: according to Vaiśeṣika theory, there are 5 kinds of material substance : (1) earth, (2) air, (3) fire, (4) water, and (5) internal organs. The 4 immaterial substances are (6) time, (7) spatial direction, (8) *ākāśa*, and (9) selves.

The distinction between material and immaterial substances is only one of several distinctions among substances of which the Naiyāyika makes use. We can reconstruct the other distinctions in turn from this one. For example, the mobility of a substance is closely related to the question of its size in a broad sense. Naiyāyikas divide substances into 3 broad classifications of size. Some substances are "atomic," of minimal size; others are middle-sized; still others are ubiquitous.

An atomic substance—an atom—is a material substance which inheres in nothing. Thus, there are atoms of earth, water, fire and air, and internal organs are atomic in size.

The immaterial substances are all 4 of them ubiquitous (*vibhu*) so that "is a ubiquitous substance" is easily defined by "is an immaterial substance." The third class of substances, the middle-sized ones, are then definable as those which are neither atomic nor ubiquitous.

Again, substances may be either eternal or noneternal. The Vaiśeṣika theory is that atomic and ubiquitous substances are eternal, while the middle-sized ones are not.

A good deal of Vaiśeṣika ontological discussion is taken up with questions about which sorts of substances are related by causal and other relations to which other sorts of individuals. In formal reconstruction we would be able to formulate the principles governing these connections only after we have satisfactorily identified by definition the members of each of the 9 kinds of substances. However, the identification of some of these kinds of substance—e.g., the discrimination of earth atoms from watery ones—requires prior definition of certain notions drawn from the other categories, for earth atoms, to take our example again, are responsible for olfactory qualities while watery atoms are responsible for taste and cold touch. Orderliness of exposition here parts company with the logical order of such definitions.

A. *Parts and Wholes*: Before turning to the 9 kinds of substances in detail, we must attend to an extremely important aspect of Vaiśeṣika ontology which ramifies implications over the whole system. This is the theory about how the atomic, eternal substances combine to form middle-sized, noneternal substances of the sort we are acquainted with in everyday life. Closely related to the topic of causality discussed in the previous chapter, the special character of the production of substances requires additonal detailed treatment, for it is over the Nyāya-Vaiśeṣika conception of unitary wholes, as opposed to aggregates or sums of qualities, that some of the sharpest polemics between Buddhists and Naiyāyikas were waged.

In Nyāya-Vaiśeṣika a whole is produced from its parts, but is not constituted by them. Favourite examples in the literature are the pot which is produced from its halves, and the cloth which is produced from the threads which compose it. The pot and the cloth are not aggregates of sherds or threads; the pot is one unified substance, of medium dimension, with its own qualities and relations, a different entity from the sum or collection of its components. We may recall

the importance of the Nyāya theory of the notion that new entities come into being through causal relations, as opposed to the Sāṃkhya view that the effect is contained in the cause.

The view finds its earliest recognition in the *Nyāyasūtras*, where Gautama infers the existence of unitary wholes from the fact that we can hold and pull things. If pots and cloths were merely aggregates of atomic entities they would sift through our fingers, for our bodies would also be aggregates of atoms. Furthermore, since atoms are too small to see, we should not be able to see substances at all.

By Vātsyāyana's time the argument with the Buddhists on this issue is in full flower. Vātsyāyana explains Gautama's views at length; he also adds new arguments of his own. For instance, he attributes to an opponent the thesis that everything is an aggregate, and points out that "aggregate" means a collection whose ultimate elements are not aggregates; thus, the thesis is self-contradictory, and some things are not aggregates. The implication is that if the opponent once admits that there are unities, he can be forced to admit that they may be middle-sized as well as atomic.

Vātsyāyana also is the first to clearly enunciate the doctrine that the whole resides in its parts by the relation of inherence. Inherence relates entities which are distinct from each other but nevertheless occur together; the whole cannot occur without its parts, but nevertheless the parts and the whole are different things, so the relation is properly that of inherence.

Uddyotakara characteristically lets out all stops on the issue by presenting some 14 different arguments against the theory and refuting each in turn. A good deal of his discussion, as that of Gautama and Vātsyāyana before him, is given over to clarification of the theory: it is terribly easy to misrepresent the doctrine in question. That is because it is essentially contrary to our usual ways of speaking. We normally *do* assume that a whole is the sum of its parts rather than being a completely different, new thing. All three authors are able to detect in a number of the opposing arguments assumptions which are natural enough in themselves but which beg the point at issue. For example, Uddyotakara has an opponent say "the whole *is* identical with its parts, since they are *its* parts!", the point being that we do, in fact, normally take a thing's parts as being components of the thing in such a fashion that part is an essential element in the very nature of the thing, a logically defining characteristic of it. Uddyotakara clarifies the doctrine here by distinguishing two senses of "part," only one of which is related to the thing in the way common sense assumes. It is true that a spatially extended thing contains points in space as

its parts, and if it did not it would not be what it is; but it is Nyāya doctrine that the threads are not related to the cloth in the way that the points in space occupied by the cloth are related to it.

A serious objection to the theory is presented, however, by Uddyotakara's last opponent, who argues that since the whole weighs the same as the sum of the parts they must be identical. Uddyotakara, in order to answer this objection, has to offer the rather lame explanation that the difference in weight, though present, is so small as to be undetectable. Others, later—notably Vācaspati Miśra and Śrīdhara—wrestled with this problem without notable success.[9]

So far we have a picture of a theory of middle-sized continuants being defended by philosophical arguments against the more natural position which implicitly interprets pots and cloths as aggregates of smaller constituent parts and which paves the way for a view of the middle-sized perceptible objects of our everyday acquaintance as being constructions of our minds. Perhaps bothered by being put in the position of trying to refute the implications of common-sense intuition by intricate inferences, Śaṃkarasvāmin suggests that actually the theory under discussion is establishable just by paying attention to what we perceive. Vātsyāyana had already argued that we sometimes, at least, *see* wholes without seeing their parts; this happens when we inspect something of minimally perceptible size, whose parts are imperceptible atoms. But the rejoinder to Vātsyāyana's point might well be "how do you establish that there are imperceptible atoms beyond the minimal perceptibilium," to which the answer must be that the theory holds it to be so. However, since the theory is what seems to need added bolstering, this answer is no help. Śaṃkarasvāmin offers a more pertinent claim to bolster the theory. He holds that we actually perceive the inherence in addition to the whole and parts. We do not know how he argued for this position, but it is clear enough that were it viable it would go quite a way toward easing the kinds of doubts, based on our ordinary habits of thinking, to which I referred above. For if we can *see* inherence we need not treat its existence as inferred on the basis of the theory alone; we know directly that it relates perceptible pots to perceptible pot-halves, and then we can infer that minimal *perceptibilia* also have parts in which they inhere. (We shall see below why the Naiyāyika is so anxious to maintain the existence of imperceptible atomic individuals.)

Dharmakīrti, the great Buddhist logician, initiated a new phase in the discussion of the theory of the whole by introducing in his *Pramāṇavārttika* 3 difficulties which, along with one or two more added

later, provided a basis for argumentation between Buddhists and Naiyāyikas reaching a climax in Udayana's treatment in the *Ātmatattvaviveka.*[10] Most of the Buddhists and Naiyāyikas between Dharmakīrti's time and that of Udayana discuss the issue, practically always using these difficulties as the springboard for their dicussions.

Dharmakīrti's 3 difficulties are the following: (1) According to Nyāya-Vaiśeṣika a person's body is a whole of which his hand is a part. Now it is possible for the hand to move without the whole body moving, as we can easily see; yet, on the Nyāya theory, since the whole is a unity, it must move if a part of it does. Therefore, we are led to a contradiction: the body both moves and does not move. (2) An extended object may be partly covered up by another one; yet, since the whole is unitary, it follows that it is both covered up and not covered up. (3) One whole, say a cloth, may be partly red and partly some other color. Yet, since the cloth is one thing, without parts, it is both red and not red at the same time.

Udayana treats these 3 arguments plus 2 more. (4) A unitary thing can occupy only one place, for otherwise it will have several parts corresponding to the several places it occupies. Yet patently the wholes, such as pots and cloths, which the Naiyāyika calls unitary do occupy several places. Therefore, one thing both does and does not occupy several places, which is contradictory. (5) When we look at a pot, we see only a part of it, namely its front side. Yet, if the pot is unitary, we must either see all or none of it, so to speak. So we must conclude that we both do and do not see all of the whole, which is contradictory.

Answers to some or all of these are to be found essayed by Vācaspati Miśra, Śrīdhara, and Udayana. As for (1), Vācaspati and Śrīdhara sharpen the point as follows. The Buddhist seems to think that when the hand moves the body must move, but this conclusion does not follow even though the body is unitary. The Buddhist's point ought rather to be this: according to the Nyāya theory the whole inheres in the parts. Now inherence is defined as requiring inseparability (*ayutasiddhi*) between its *relata.* But if the hand (the part) moves while the body (the whole) does not, then surely this means that the hand is separable from the body, and thus inherence cannot relate them. But the Naiyāyika answer is merely this: inseparability does not require that the two things so related have all the same qualities and motions, but rather only that they cannot exist separately. Even though the hand moves and the body does not, still wherever that hand is the body is too; thus, they are inseparable.

There is some difficulty felt by our authors about what is being

claimed in argument (2). Vācaspati thinks the suggestion is that since a part of the whole is covered up we cannot see the whole, because we cannot see that part. His answer to this is that, on the contrary, since we can see the other part, we can see the whole! Udayana picks up some words of Vācaspati's in explaining that the term "cover up" refers necessarily to the dimension of what is a quality of a thing distinct from the thing itself.

We shall see in more detail that the Naiyāyikas propose to answer argument (3) by developing a theory according to which certain qualities do not pervade their loci, for example contact. Vācaspati answers (3) by saying that a thing becomes partially red and partially not by coming into contact with another substance—e. g., paint—but the contact is not locus-pervading and so does not color the whole surface of the thing. This leaves untouched the question whether one thing (e.g., a zebra) may be naturally striped. Udayana and others take a different tack, adopting the notion that there is a type of color called "variegated" (*citra*). Udayana's answer to (3) is that no single thing can be and not be a given color at one and the same time, and if it is not red or green, etc...all over it is then variegated-color all over.

The fourth argument has ramifications beyond the context of a discussion of wholes, since it relates to the attitudes of Buddhists and Naiyāyikas on the problem of universals as well. The Buddhist finds it contradictory that one thing can occupy more than one place: universals, as well as wholes, are entities which in the Nyāya view do just that. The answer of the Naiyāyika is just that things do come into contact with more than one thing at once. If "the place" occupied by *x* and "the place" occupied by *y* are different, and *x* and *y* come into contact with *z*, *z* is to that extent occupying two different places. According to Nyāya-Vaiśeṣika atomic theory atoms can do just that, namely, come into contact with several other atoms at once.

Finally, argument (5) is answered in the fashion we have seen Vācaspati answering what he takes to be argument (2).

A different question entirely is the following: under just which circumstances do two entities combine to form a whole, as opposed to what the Naiyāyikas call a "loose aggregate" (*pracaya*)? Surprisingly little is said on this topic, which one would have supposed to be crucial and unavoidable for those constructing the theory. Praśastapāda speaks to it when he discusses what happens when two pieces of cotton are rolled up into a ball. Here he thinks a new whole is produced. But he adds that outside of special instances such as this one the coming together of two middle-sized objects does not produce

a larger one. Yet, this is hard to reconcile with the stock examples of pot-halves forming a pot, or threads a cloth. Vyomaśiva says that the human body is a final whole (*antyāvayavin*)—it does not produce further wholes by contact with other bodies.

A contemporary Nyāya scholar, Jitendranath Mohanty, has noticed this defect in Nyāya-Vaiśeṣika theory and suggests an intriguing answer to it.[11] He points out that since wholes are produced from contact among their parts, it might be thought that the Naiyāyika believes there is a special kind of contact which produces wholes rather than mere aggregates. But, Mohanty argues, since even the parts of a whole, e.g., the threads in a cloth, can be separated, this distinction is not viable. Yet, the question must be answered: why, for example, is the potter's handiwork a whole, but God's handiwork, namely the universe, not a whole? Mohanty suggests that the answer might be located in a tacit Nyāya premise that he likens to a phenomenological thesis, namely, that in Nyāya everything is "intentional" with respect to other things, and so the pot-halves "call for" a pot while the whole pot does not call for any larger entity.

As it stands this analysis might seem to have little to recommend it; it appears as rather *ad hoc* appeal to anotion not to be found in the literature. Yet perhaps it should not be dismissed too easily, for we should remember the nature of the primitive relation with which we started, the self-linking connector. To just which things does an entity link itself? And why those things and not something else? In a sense the whole Vaiśeṣika system may be taken as a compendious answer to that very question, for it details the "rules" of combinations among the individuals allowed into the system and of those entities which the elementary individuals combine to produce or otherwise form. If the self-linking connector is an "intentional" notion, and it seems hard to see how else it can be interpreted, then one may well admit that the point of view carried through within this system is permeated with the sort of "phenomenological" orientation Mohanty is concerned to identify. Even so, the fact remains that the Naiyāyikas pay scant attention to the problem of how one is to tell a "final" whole from one that is not.

B. *Atomic Theory and Theory of "Cooking"*: Atoms are conceived in Vaiśeṣika as small, eternal, uncaused material substances. According to the authors of the *Sūtras* atoms are too small to be perceived; they must be inferred from their effects. Kaṇāda says they may be without qualities —temporarily "bare particulars." Some modern writers have suggested that they are to be likened to extensionless, mathematical points. Harisatya Bhattacharya warns us not to equate

these atoms with their Greek counterparts. "They are neither gross matter as we ordinarily suppose, nor infinitesimally small bits of extended gross matter, as the early Greeks supposed."[12] And Faddegon writes "Vaiśeṣikas...have never tried to explain the qualitative changes of compound things as results of quantitative changes...in the atoms..; their atoms are not absolutely hard corpuscula, but are mathematical points."[13]

Gautama maintains that an atom is indivisible, and considers the objection that since it can be penetrated by *ākāśa*, which is all-pervasive, it must be divisible. Gautama's answer is to redefine the all-pervasiveness of the *ākāśa*: its all-pervasiveness consists not in its occupying every point in space, but rather in its being in contact with everything.

Buddhists of approximately the same period, it is interesting to note, were engaged in very similar discussions, for there were certain Buddhists who believed, as did the Vaiśeṣikas, in the existence of atoms. The most frequently heard objection to atoms is to be found in the *Nyāyasūtras*: since atoms are admitted to have contact with things, and since they are material, it is permissible to infer that like other material entities in contact with each other the contact occurs at only one point on their surface; but if so, atoms are not indivisible after all, since that point of contact is discriminable as a proper part of the whole atom. The answer is predictable: if so, an infinite regress will result. Somewhere in the series of entities of smaller and smaller dimension there must be a limit, and it is entities of the smallest size, that are to be called "atoms." Candramati has a special term for that size, meaning literally "spherical" (*pārimaṇḍalya*), to distinguish the dimension of atoms from "atomic dimension" (*aṇutva*), which is found in other very small things.

This whole discussion is as usual developed at length by Uddyotakara, with special attention to the problem of conceiving contact among atoms which is not contact at a point on the atom's surface. He begins by pointing out that contact is a quality inhering in two substances—say, two atoms—but that in general qualities do not increase the size of the substances in which they inhere. E.g., the red color of a rose does not make the rose any bigger. Neither, says Uddyotakara, does the contact between the two atoms. Now you may ask—why is it that two material substances, when they come into contact, produce a larger whole? The answer is not that the contact adds dimension to the substances, but rather that two material substances cannot occupy the same place. Contact is a quality inhering in pairs, not a link between the elements of the pairs; thus the question as to where the contact links them need not arise. In fact, Uddyotakara

implies that atoms have no sides, so that the situation corresponding to the usual thought-picture of a circular object with 6 circles impinging on it on various sides cannot arise either. Atoms may be "spherical," but it is not a kind of sphericity which allows something to come into contact with one side of it and not with the other at the same time.

By Udayana's time the discussion appears a good deal more technical. There has now developed the distinction between two kinds of contact called "locus-pervading" and "non-locus-pervading". Udayana has a Buddhist argue that there are no atoms, since the contact between atoms is neither locus-pervading nor non-locus-pervading and the dichotomy is exhaustive. According to the Buddhist, if the contact were non-locus-pervading then the atoms would have parts and be divisible. If it were locus-pervading then when an atom x is in contact with another atom y, x can have no further contact with any other atom z, whereas it is clear that if this were the case nothing would ever get produced from atoms. The idea is this: if contact is locus-pervading, then two atoms in contact will occupy precisely the same extent in space or none at all; thus, no spreading out in space can result from combination of atoms, and as we shall see it is from the combination of atoms that middle-sized objects eventually arise.

Udayana's reply is a clever ad hominem against the Buddhists: if this argument were allowed to refute the existence of atoms, a parallel argument would equally refute the existence of ideas (which the Buddhists believe to be existents rather than atoms). Udayana's positive attitude to the matter seems to come to this: contact is a quality of certain pairs of things. We know this to be true from experience. But it is not a kind of physical something which sits between the bottom of the cup and the top of the kitchen table; rather, it is just a quality which qualifies the pair. Since it is not necessary to bring in discrimination of parts of two ordinary sized objects to be able to talk about their contact, there is no difficulty in speaking in the same fashion about atoms. As for the question of how two atoms in contact can occupy more space than one of them alone, the answer is just that they do: again, we see that they do in the world of macro-objects, and there is no reason to deny that it happens in the realm of atoms.

Is contact between atoms, then, locus-pervading or not? It is not. "When, therefore, one atom is simultaneously conjoined with others, the conjunctions are distinguished from one another and thus believed to be partial, not because of their location in the different parts of the central atom, for the atom is *ex hypothesi* impartite, but because they are found to be spatially limited through association with different directions or points of space (*digbheda*)."[14] The atom does

not "occupy" space it seems, but becomes related to spatial directions. We shall return to a more detailed discussion of space in a short while.

Turning to another point, let us ask the Naiyāyika why it is that the atom must be imperceptible? Why not just say that the smallest perceptible individual is the atom, that it is with it that the regress stops, and that we do not need to go on to postulate imperceptible entities? Kaṇāda seems to have thought that the eternal character of atoms depended upon their imperceptibility, since every perceptible entity is destructible. We have seen that it is important for the value theory of Hinduism that the world should be beginningless and continue through the cosmic pauses between cycles; atoms must therefore be counted eternal. Uddyotakara was aware of a theory, perhaps actually held by someone, identifying the minimal perceptibilium with the atom, but he rejects the theory on the ground that a minimal perceptibilium can be broken into parts, since it is perceptible. It is not until Raghunātha Śiromaṇi in Navya-Nyāya that this apparently reasonable identification is espoused by a known Naiyāyika.[15]

A fundamental problem for the Vaiśeṣikas was to explain how imperceptible atoms could combine to produce perceptible individuals. One might suppose that this would not have been a great problem: surely if one takes enough things below the threshold of perception and sets them beside each other he will produce something perceptible. There is textual evidence to suggest that some of the early Vaiśeṣikas held this straightforward view.[16] Bhāsarvajña presumably does also, judging from the remarks of his follower Aparārkadeva. But the preponderance of extant Nyāya and Vaiśeṣika texts come down in favor of a more complicated theory.

According to this theory, detailed most notably in the commentaries of Vyomaśiva, Śrīdhara, and Udayana on Praśastapāda's *Padārthadharmasaṃgraha*, two atoms combine to form an imperceptible dyad, but it takes three dyads to form the minimal perceptibilium (*trasareṇu* or *truṭi*). Several motives seem to incline these writers toward this cumbersome theory.

Praśastapāda says that the dimension of a whole is produced by one or another of three things: (a) the dimension of its parts, (b) the looseness of the contact between its parts, or (c) the sheer numerical diversity of its parts. Now an atom has the dimension called "small size" (*aṇutva*). Suppose a minimal perceptibilium were produced by three atoms combining, and its dimension produced according to (a), that is, from the dimension of its parts. Then, since a quality can only produce another quality of the same type as the first, the dimension of the minimal perceptibilium will also be "small," but

the minimal perceptibilium is by hypothesis of "large," i.e., perceptible, size. Loose contact, (b), is not possible among atoms. Thus by elimination the cause of the large size of the minimal perceptibilium is (c), the number of its parts.

This argumentation is surely defeasible, but even if it is accepted the conclusion needed does not follow at all obviously. Why should not the number 3, qualifying 3 atoms, be the cause of large size in the minimal perceptibilium, which would then be analyzed as composed of 3 atoms? The answer is that experience tells us, not only that any gross object has smaller parts, but also that every such object has as parts things which are themselves products. If the minimal perceptibilium is a collection of 3 atoms, then it violates this rule. Thus, it must have as its component parts things which are themselves composed.

The resulting theory satisfies these various rules about causation and size: dyads are postulated, which have atoms as parts but which are not perceptible; thus, these dyads are of the "small' dimension. The minimal perceptibilium is then defined as the individual produced by 3 of these dyads in combination. Why 3, rather than 2? The answer is apparently that the number 3 is the smallest number which can be associated with the "large" dimension. Then the causes of this triple dyad are its parts, which are themselves composed according to the rule enunciated in the previous paragraph, but since these dyads are not of the "larger" size their parts need not be composite; thus, they may be the atoms.[17]

It becomes clear, then, that the motivation for this complex theory lies in the intention to honor certain supposedly empirically ascertainable rules—that size is produced by the size, form of contact, or number of the parts of a thing; that a quality can only produce another of its own kind; and that the parts of a perceptible thing must be products. What Bhāsarvajña, or at any rate Aparārka, contends is that at least one of these rules is not given in experience but postulated as theory, and as such does not have to be honored. The rule Aparārka rejects is the one about a quality only producing another of its own kind; he sees no reason why something of a small size cannot produce a thing of large, perceptible size. Thus, for him the argument reviewed above does not get started.

What both Praśastapāda and Aparārkadeva agree on, at any rate, is that there are atoms and they combine to form compound substances, eventually the everyday macro-objects of our experience. These atoms are eternal and in themselves changeless. Yet, the objects of which they are the ultimate constituents are constantly

changing. It is this fact of constant change which leads the Buddhist to his theory of the momentariness of all real things. How is the Naiyāyika going to explain change consistently with his hypothesis that the changing substance remains constant? What is the Nyāya-Vaiśeṣika solution to the hoary problem of the one and the many, stability and change?

The identity of a substance through time is presumably to be based, in Nyāya-Vaiśeṣika, on the identity of the atoms which are ultimate constituents of the substance. If this kind of identity through time is not maintained, the Buddhist point is fully made, for every moment a new substance replaces the previous one. Thus, the substance's essence must be located ultimately in unchanging material, and in Vaiśeṣika this material consists of atoms. But if the atoms are unchanging what is the source of the change undergone by the substance those atoms constitute?

The answer is that the qualities of a substance may change while the substance persists. But it takes some doing to make this theory viable. As we are about to see, the details of this part of the theory are among the few matters over which Nyāya and Vaiśeṣika traditionally part company.

The stock example of the kind of change to which these divergent accounts are addressed is the baking of a pot. Indeed, the whole process of qualitative change involving the atoms is referred to in Sanskrit as *pāka*, literally "cooking." An unbaked pot is (depending on the kind of clay used) black, say, but after it comes out of the oven it is red all over, both outside and in. Yet, *ex hypothesi* it is the same atoms making the same pot. "Cooking" does not only affect change in color, mind you; it applies equally to all sorts of changes of quality, including the gestation and maturation of plants and animal organisms. Any change which comes about through application of heat is classified under *pāka*.

The Vaiśeṣika theory, found in the *Vaiśeṣikasūtras* themselves, is that when a pot is baked the heat of the fire destroys the contact of the atoms constituting the pot and immediately thereafter destroys the black color. For a moment, then, the atoms exist without any color at all. But immediately the heat produces a new, red color in each atom, and they then combine so as eventually to reform the pot with its new red color. This theory of Vaiśeṣika is called *pīlupākavāda* ("the doctrine of cooking atoms") for the change takes place in each isolated atom.

Again this counterintuitive theory is called forth by what Vaiśeṣikas take to be a highly confirmed empirical generalization. This genera-

lization is that qualities of wholes are produced by the qualities of their parts. The Vaiśeṣika thinks this law must be reflected in the system, while the Naiyāyika thinks it is not, as it stands, a law at all. If it is a law, the Vaiśeṣika's conclusion is understandable — the pot can only be red if its ultimate parts — the atoms — are first red. But why does the Vaiśeṣika think that the pot must disintegrate in order that the qualities of its atoms must change? The answer is that the Vaiśeṣika is aware of what he takes to be another empirical law, which is that when fire pervades all the atoms of a substance the substance gets completely burned up so that it cannot reconstitute itself. Since wood burns, why not a pot under the same conditions? The Vaiśeṣika concludes that the conditions cannot be the same, that the heat does not completely penetrate the pot while baking as it does the piece of firewood.

Why do the heated atoms come out of the oven red rather than, say, yellow? It is a result, say our theorists, of the dispositions of individual atoms to develop a certain color upon being subjected to heat of a specific intensity. Indeed, it would seem that according to Udayana all atoms have these dispositional characteristics such that although normally not exhibited they will appear whenever the atom is subjected to a certain amount of heat.

Does this Vaiśeṣika theory meet the Buddhist charge that all change is destruction of identity? Not really, one might contend. The Nyāya-Vaiśeṣikas admit that a whole is a completely different thing from its parts. But according to the above theory, when qualitative change occurs the whole disappears temporarily, not to speak of the pot-halves, their constituents, etc. Under these circumstances what sense can be made of the Vaiśeṣika thesis that the pot persists throughout? In fact, all that persists are the atoms; but the atoms are by the Vaiśeṣika's own admission not the pot. Thus, whenever a quality changes through cooking the substance *is*, *pace* Vaiśeṣika, destroyed and a number of moments later *another* pot is created. Indeed the Vaiśeṣikas spend some of their time calculating the number of moments it takes for such destruction and creation to be completed — some say it takes 9 moments, others 10, etc.

Which brings us to what the Naiyāyika, as opposed to the Vaiśeṣika, holds to happen in cooking. He calls his theory *piṭharapāka*. According to it the whole remains intact while the change occurs. The Nyāya defenders have no difficulty in finding trouble with the Vaiśeṣika theory, and I have tried to show above why the Nyāya theory, if otherwise tenable, is an important element in the school's *riposte* against Buddhist flux-theory. Their only problem is to

show how the supposed facts that motivated the *pīlupākavādin* in his unprofitable theory are to be properly construed.

These "facts" were two: one, that fire burns up wood but not pots, and two, that the production of qualities in a whole arises from the qualities of its parts. Nyāya admits that both of these claims are true, but argues that they do not entail the Vaiśeṣika theory. The Vaiśeṣika thinks that since fire does not burn up a pot and yet manages to change the pot's qualities, both inside and outside, the solution to the puzzle must lie in the pot's temporary disintegration, so as to allow the fire to get at the atoms. Nyāya points out, however, that a wet pot is porous, so that the heat gets in among the components of the pot and thus affects its inside as well as its surfaces. As for the second claim, Nyāya admits that the quality of the whole is a function of the quality of its parts, but sees no reason to admit that this rule holds in the specific case of the production of new qualities in atoms, which have no parts. And if the Vaiśeṣika will admit that the law fails in the case of atoms, as it must according to its own theory, then it should be willing also to admit that new qualities may arise in atoms even when they are conjoined with others in a continuant.[18]

C. Earth, Water, Fire and Air: We can now turn to consider the special characteristics of each of the 9 kinds of substance. A great amount of space in the early manuals of Vaiśeṣika, notably the *Vaiśeṣikasūtras* and the *Padārthadharmasaṃgraha*, is largely taken up with specifying the kinds of qualities each sort of substance may display.

In treating each of these 4 substances, our philosophers characteristically list the kinds of qualities a substance may have and classify the modes in which the substance is displayed in the world. We may summarize the standard account of the qualities of these 4 in the following table:

	earth	*water*	*fire*	*air*
(has) color	x	x	x	
taste	x	x		
smell	x			
touch	x	x	x	x
number	x	x	x	x
contact	x	x	x	x
disjunction	x	x	x	x
farness and nearness	x	x	x	x
size	x	x	x	x

separateness	x	x	x	x
weight	x	x		
fluidity	x	x	x	
viscosity		x		
impetus (*vega*)	x	x	x	x
elasticity	x			

In addition, each of these 4 substances is taken to have its peculiar, differentiating quality. Earth is the unique locus of smell, as will be seen from the table. Water is the peculiar locus of cold touch, that is, it causes all experiences of cold touch in, e.g., ice and snow as well as running water. Likewise, fire causes all experience of heat as grasped through the skin. Air's peculiar quality is tangibility which is neither hot nor cold and is not produced by cooking (*apākaja*).

Air presents particular problems. The need for postulating its existence over and beyond that of space apparently stems from the experience of wind, and some translators have rendered the term *vāyu* as "wind." Kaṇāda holds that we know of the existence of air only by inference, while we directly perceive the other 3 kinds of middle-sized substance. This reflects an ancient predilection of our philosophers to define perception in terms of visibility primarily, so that possession of color is taken to be a necessary condition for perceptibility in general. Jayanta appears to think that it is a Vaiśeṣika, not a Naiyāyika, tenet that air is imperceptible. Vyomaśiva argues, as against tradition, that air is perceptible, and though a Vaiśeṣika author he sets aside the authority of Kaṇāda which makes possession of color a necessary condition of perceptibility. However, Vyomaśiva's view is ignored by the other commentators on Praśastapāda, who develop Kaṇāda's suggestions about the basis for inferring the existence of air.

Air is to be inferred on several grounds. (1) As we have seen, water produces cold touch, fire produces hot touch, earth produces touch but only when "cooking" has taken place, so that its touch is indirectly produced by fire. Now since the touch of the wind is neither hot nor cold and is not produced by cooking, there must be a substance in which that kind of touch inheres, and that substance is air. (2) The mechanics of the production of the sound of the wind necessitates the postulation of a substance against which clouds, etc., can strike, so as to produce sound waves which eventually carry the wind sounds to our ears. (3) There must be a substance to hold up clouds and the things blown about in the wind, and that substance must have touch and velocity (or impetus, *vega*); thus space itself

cannot be the substance in question, and air needs to be postulated. (4) An argument from the quivering motion of trees in the wind is also found.

Objects composed of these 4 elements are first divided into two sorts, eternal and noneternal. The eternal objects are the atoms, discussed above. Praśastapāda goes on systematically to classify the kinds of noneternal objects for each of the 4 substances. Thus, nonatomic earth is of 3 kinds: bodies, the organ of smell, and middle-sized objects produced from the earth atoms. Similar divisions, and appropriate subdivisions, are offered for the other 3 substances.

1. *Bodies*: Praśastapāda distinguishes bodies into two main sorts, wombborn and non-wombborn. Among the latter kind are to be classed both the bodies of very low forms of life — insects, plants — and also the bodies of the gods and semidivinities recognized in Hindu lore. Such bodies may be made of any of the 4 substances. The lower forms of life have earthy bodies, but the gods may have watery, fiery, or airy bodies depending on the part of the universe in which they reside.

As for the wombborn bodies , they are of two types: viviparous and oviparous. Udayana thinks that plants should be included as a third sort, while Praśastapāda relegates plants to a place among the lower forms.

According to Kaṇāda and Gautama the animal body is composed exclusively of earth. But, of course, this theory flies in the face of the evidence, for the body breathes, is hot and cold, contains blood, etc. Our philosophers thus had to defend their view against the more intuitive theory that the body is composed of several elements in combination.[19] The authors of the *sūtras* merely state the thesis; it is left for later writers to defend it. Praśastapāda does not raise the question. Vyomaśiva is perhaps the first to expand on the topic. He argues that the body is composed of earth only, not of all 5 elements, because if it were composed of all 5 elements, it would display the specific qualities of each of the 5. The body is not luminous, like fire, nor is it always cold and hot to the touch; but if it were composed of atoms of all 5 kinds it would display all these features constantly. Vyomaśiva admits, however, that the specific qualities of the other elements are occasionally found in bodies, and explains this by saying that whereas earthy compounds constitute the inherence cause of a body, contacts with other elements enter in as noninherence and instrumental causes, and in this qualified sense the combined element theory has some truth to it.

The Nyāya-Vaiśeṣika conception of a body excludes the sense organs

of vision, audition, smell, touch, and taste. According to Gautama the body is the locus of the sense organs. Realizing that this relationship is a puzzling one, Vātsyāyana explains it. The body is the locus of motions caused by desires and aversions in the self inhabiting that body. Whatever helps or hinders the sense organs does so by its effect on the bodily members through which the organs operate, and the pains and pleasures experienced through the senses are experienced in the body. For all these reasons the body is the locus of the senses.

2. *Sense Organs*: From what has just been said it becomes apparent that a sense organ is not to be identified with the part of the body through which it operates. Each sense organ is held to be composed of one of the 5 elements. The organ of smell is composed entirely of earth, the organ of taste of water, the organ of touch of air, the organ of sight of fire, and the organ of hearing of *ākāśa* or "ether." In the *Nyāyasūtras* we hear of an opposing point of view according to which all the senses are made of one element,[20] but this is rejected with the argument that were it so, one would not be able to see without hearing, etc.

This theory about the peculiar constitution of each sense organ has implications for the theory of perception which we shall reserve for the section on perception below. For example, each sense organ, constituted by its unique element, can grasp objects composed exclusively or primarily of that kind of substance, which is why we do not see without light (fire) being present, cannot taste air, etc. Another topic of discussion in this literature concerns whether there are one or two eyes. This would seem a silly controversy if it pertained to the eyeballs, for anyone can see that each normal human body has two of them. But the Naiyāyikas hold that the sense organs themselves are imperceptible, unlike their bodily loci.

Though Kaṇāda counts the sense organs as 5, it would seem that the number ought properly to be 6, since the internal organ is a sense organ, grasping kinaesthetic sensations. Dignāga argues this, and pokes fun at Vātsyāyana's uneasy attempt to remain true to the *sūtra* while admitting that the internal organ is indeed an organ.[21] Later writers refer to the "external sense organs," meaning those 5 which grasp objects external to the body.

3. *Gold*: Praśastapāda says there are 4 kinds of fiery objects: first the fire and light we find here on earth, secondly heavenly fire, i.e., the sun, thirdly the fire in organic bodies, inferred from their heat, and fourthly mineral fire, namely gold. He quotes the Vedas in support of this last theory that gold is a fiery object. Vyomaśiva supplies one argument: whereas properly earthy objects become gaseous

when heated sufficiently, gold melts and becomes fluid. This, however, does not explain why gold should be brought under fire rather than one of the other elements. Śrīdhara supplies further information. He contrasts butter, which is earthy, with gold, which is fiery. When butter is heated it eventually disappears—becomes a gas—while this does not happen to gold. What remains when gold is heated is pure fire. It is fire for it is self-illuminating; put molten gold into the dark and it will light the place up. Śrīdhara admits that this pure fire which is gold is mixed with particles in the solid state: that is why it has weight and why it does not in that state illuminate itself.

D. Ākāśa or Ether: Just how to translate the term *ākāśa* is a difficult question. Since *ākāśa* is taken in Nyāya-Vaiśeṣika to transmit sound-waves the term "ether" comes to mind. Faddegon, however, suggests "physical space."[22] Yet, *ākāśa* is not exactly ubiquitous, since it does not penetrate atoms of the first 4 substances, whereas, of course, space as normally conceived does. Furthermore, the Nyāya-Vaiśesikas, as opposed to Bhāṭṭa Mīmāṃsakas and Vaiyākaraṇas, believe that *ākāśa* cannot be perceived, whereas space, one might suppose, can be. The main difficulty with translating *ākāśa* as space, however, is that there is another substance answering to "space," namely *dik*. We shall come to it in due course. For clarity's sake, let us leave *ākāśa* untranslated.

The proof of *ākāśa's* existence is exclusively from the facts about sounds. For reasons we shall review below, the Nyāya-Vaiśeṣika view, and his alone, is that sound is a quality, a member of the second category. Once that is established it is easy to infer the existence of *ākāśa*, for every quality must have a substance as its locus and all the other 8 kinds of substance can be eliminated; or at least so most Naiyāyikas believe. Sound cannot be a quality of earth, water, fire, or air, since it is found where those substances are absent. It cannot be a quality of the internal organ, for it is apprehended by an external sense organ. The reasons why sound cannot be a quality of time or space are somewhat more complex and rather less convincing. The Naiyāyika argues first that sound is a specific quality (*viśeṣaguṇa*) like touch, taste, color, and smell, since it is grasped by one sense organ only Granting that, he next points out that time and space have no specific qualities. Just what is a "specific" quality ?[23] It is one which is locatable in, or originates in, a particular place and time. Since time and space are inclusive of all particular times and places, they have no specific qualities: thus, they are ruled out as the locus of sound. Finally, selves are not the loci of sounds, since none of the qualities of selves are apprehendable by external sense organs. Therefore, an addi-

tional substance must be inferred to be the locus of sound, and that substance is *ākāśa*.

There are defects in the above reasoning. For example, the term *viśeṣaguṇa*, "specific quality," is applied not only to the sensible qualities but also viscidity and fluidity, which are likewise locatable in a particular place and time. Vyomaśiva notes this.[24] More serious is this point: according to Nyāya *ākāśa* is single and is in contact with everything at once. So are time and space. Why, then, is it that *ākāśa* can have specific qualities while time and space cannot?

Again, the reasoning that excludes selves as the substrata of sounds is not entirely convincing, particularly if we notice that according to all but the earliest Naiyāyikas God is one of the selves. Why can't we say that all the qualities of our selves are psychical, but that some of God's qualities are unlike the familiar ones of pleasure, pain, etc.? Some of the more imaginative among our authors modified the traditional ontology and eliminated *ākāśa* as a distinct substance. Just who was to pioneer these unorthodox notions is not clear. Aparārkadeva identifies space and time with God, but does not seem to question *ākāśa's* separate existence.[25] The first writer who clearly identifies *ākāśa* with time and space is, surprisingly, Śivāditya in the *Saptapadārthī* — a rather unoriginal work in other respects. One may suspect that its author transmitted this theory from an earlier source. But Śivāditya does not follow Aparārka in identifying space-time-*ākāśa* with God. It is Raghunātha Śiromaṇi who does this.[26]

Ākāśa has 6 qualities. It has number — the number one, since it is single. It has a size. It is separate from other things, comes into contact and becomes disjoined from things. And, of course, it has sound, The auditory organ is composed of *ākāśa*. We shall discuss the mechanics of the transmission of sounds through *ākāśa* below. Briefly, a sound produces waves which in turn produce others until the series arrives at that portion of the ubiquitous *ākāśa* which is enclosed in the auditory cavity; then the sound is heard.

E. Space and Time: Philosophical scholars sometimes divide theories of space and time into two main divisions: absolute and relational.[27] The Nyāya-Vaiśeṣika theory is relational, though it might at first glance seem otherwise. Space and time are not viewed either as receptacles in which objects move or as continua of fixed points constituting extension. Rather, they are inferred, or for some Naiyāyikas perceived, as the necessary relating principles among physical things which enables those things to be related by relations such as being above or below, before or after, farther or nearer, etc.

The philosophically challenging question about space and time is

how do we come to know about them, and are they independent of our knowing them? The Nyāya-Vaiśeṣika has no doubt about the last question: they certainly are independent existents. About their cognition there is, however, lack of unanimity. Kaṇāda, Praśastapāda, and Uddyotakara hold that space and time must be inferred while Jayanta, siding with the Mīmāṃsakas on this point, finds them to be perceptible. Jayanta's argument on this score is simply that since we perceive things in space we perceive space in addition to things, and likewise since we perceive things at times we perceive time in addition to the things. The answer of the other faction is, first, that space and time cannot be perceptible since they lack a necessary condition of perceptibility, and that secondly, what is perceived is not space or time but rather the things in relations (spatial and temporal) to one another.

The condition of perceptibility which is said to be lacking in the case of space and time is possession of color. In discussing perception below we shall return to this requirement; Jayanta merely dismisses it as a mistake. More interesting is the way in which Praśastapāda and company propose to explain the inference to the existence of space and time. Bhaduri has summarized this insightfully.[28] The account is roughly as follows. We perceive pairs of objects with qualities of remoteness and nearness — spatial or temporal — inhering in them. Furthermore, we are able to make comparative judgments of this sort — we can say that *A* is farther from *B* than from *C*, etc. What enables us to make this judgment? It is the greater number of contacts between individuals spread out between *A* and *B* than between *A* and *C*. For example, the ink bottle is nearer to the pen than to the radiator, that is, the number of contacts present in a line from the ink bottle to the radiator is greater than the number from the ink bottle to the pen. Only thus can the notion of "greater distance" be explained. But when we look for the individuals whose contacts must be counted up, we do not find any belonging to the other categories — or at least we do not find the right number. Between the ink bottle and the pen a book (say) is situated, while between the ink bottle and the radiator there is just space! Thus, in order to provide the material to explain these comparative judgments we must postulate an intervening series of entities, and these are spatial. As Bhaduri puts it, contact is not a transitive relation, and space is introduced to "make it transitive"[29] and more generally to relate two otherwise unconnected things by a series of contacts postulated to lie between.

The example just given relates to spatial discrimination. A some-

what similar argument holds for the existence of time, except that in order to explain temporal discriminations we need to bring in reference to a standard temporal unit, which Vācaspati proposes may be found in the standard experience of a single day — i.e., of a sunset and sunrise. Then the notion of "older than" may be explicated as "has been connected with a larger number of days than." The inference proceeds through the question: what connects an object to a day? The answer given by the Vaiśeṣika is : time. That is, to say that *A* is older than *B* is to say that there is an entity, time, which connects the sun and *A*, as well as the sun and *B*, every day that *A* and *B* have existed, and that the number of such connections in the case of *A* has been greater than in the case of *B*.

Space and time, like *ākāśa* and a self, are held to be ubiquitous substances, uniformly present everywhere and so eternal. This may sound like the receptacle theory, but it is actually very different. As we have seen, the work that time and space do is done, not by the single, ubiquitous substances, but rather by the particular spatial or temporal relations which connect pairs of objects. Why not say, then, that there are as many spaces and times as there are relations of this sort? The answer is that when Vaiśeṣika says that there is only one space and one time, he is denying that any two objects in the universe cannot be related temporally and spatially. If there were more than one space, then *A* in one space could not be connected to *B*, in the other.[30] Thus, space and time are continua of relations potentially available to relate any objects "anywhere" and "anywhen."

As we have already seen, later theorists found it economical to identify space and time with each other and with *ākāśa* and God. Since all of these are ubiquitous substances with different functions, it is tempting to reduce them to one substance with manifold functions.

F. The Internal Organ: The last two substances in the list are involved in explanation of psychical rather than physical events. This difference does not make them members of a different category, however; it merely means that some of their qualities are of a quite different sort from those of the physical substances.

The word *manas* is cognate to English "mind," but is normally used in Indian philosophy to denote, not an actively cognitive faculty, but a passive internal organ, incapable of any such activity as thought, intrinsically unconscious.

The internal organ, as remarked before, acts as a sixth, internal sense organ, receiving kinaesthetic sensations and passing them on to the self. It also has a second function : it acts as a sort of secretary

for the knowing self, passing on one sensation at a time so that the self will not be swamped with too many data at once. In short, it is appealed to in order to explain the fact of attending, as well as the fact that knowing takes time and does not occur all in an instant. The theory which explains both of these facts is that the internal organ must contact an external sense organ in order that the data grasped by that organ can be passed along to the seat of consciousness, and that the time the self takes to synthesize its awareness of an object from the data gathered by the senses is due to the time it takes for the internal organ to get into and out of contact with each of the several organs.

There are indefinitely many selves in Nyāya-Vaiśesika, and each one, when embodied, has one internal organ connected to it. Internal organs are mobile, minute entities; their motion is caused by the volition of the self to which they belong. The facts of yogic experience are for the most part explained with the help of this theory about the internal organ. A yogi is one who can move his internal organ around in remarkable fashion. Yoga, indeed, is explained by Kaṇāda as the withdrawal of the internal organ from contacts with the external sense organs; this is evidently a description of *samādhi* or meditation. Liberation itself, being a never-ending state of *samādhi*, necessarily involves absence of these contacts. In addition, yogis are able to move their internal organs in and out of their bodies at will, which enables the yogi to have supernormal knowledge of things beyond the ken of ordinary people, as well as an occasion to inhabit more than one body intermittently, etc.

As an aid in explaining certain facts of the psychic experience of ordinary people the internal organ is also invaluable. It is peculiarly involved in memory, intuition, dream, as well as perceptions of pleasure and pain, apprehension of desires, etc. We shall discuss memory and intuition, as well as dream, in their epistemological aspects. We may only pause to note that the Naiyāyikas, as other philosophers in India, have thought quite a bit about dream and sleep. Śivāditya says that sleep occurs when an internal organ of an ordinary person is brought to rest out of contact with a sense organ. There are a variety of causes mentioned which produce the dream-awarenesses through an internal organ at rest, and as we shall see there is a question raised whether dream is a kind of memory.

When the body dies the internal organ joins the "subtle body" and transmigrates to a new body. An internal organ is eternal; like atoms, it is never destroyed. But it cannot function except within a body, in conjunction with a self; thus, a disconnected internal organ has no function and is undetectable. Also like atoms, one internal organ is

just like the next as far as its intrinsic characteristics are concerned, and so individuators are needed to distinguish one from another.

There is a rather interesting controversy between Nyāya and other schools about the size of the internal organ. The Bhāṭṭa-Mīmāṃsakas argue that the internal organ is ubiquitous, while Vedāntins argue that it is middle-sized. The Nyāya view that it is minute is defended on the ground that it alone suffices to explain all the relevant facts; the attempts of the opponents to qualify their respective positions to account for the various functions of the internal organ are dismissed as unnecessarily forced or downright inconsistent.[31]

G. Selves : Nyāya-Vaiśeṣika believes that there are an indefinite number of substances which are capable of cognitive, volitional, and affective activity. These are the selves. They are ubiquitous and everlastingly existent. As the sacred scriptures assert, a self is never born and never destroyed.

Kaṇāda holds that though one's self cannot be perceived by normal folk (it can be perceived only by yogis), it can be inferred following several sound lines of argument. One we infer the existence of a knower from the fact of knowing, a fact which is as certain as anything can be for us. This is a proof of the existence of our own self. A second proof for myself is my use of the word "I", a word which cannot be properly interpreted as referring to my body for the simple reason that I talk about "my" body and thus presuppose something else as the "owner" of that body.

There are other proofs which prove not only the existence of myself but also of other selves. According to Kaṇāda we infer the presence of a volitional agent in other bodies by noticing the pattern of activity within these bodies, as well as by noticing facts such as breathing, the exhibition of certain sorts of behavior expressing pain or pleasure, desire and aversion.

As the system develops these arguments are worked out in greater detail, and new ones added. A large part of the third book of the *Nyāyasūtras* is concerned with the proof of the self. Gautama takes pains to refute the notion that the seat of cognitive activity is in the sense organs. In a Platonic vein he argues that we must postulate a self to explain the behavior of a new-born child, for its activity can only be understood on the supposition that it remembers things from former births, and memory involves previous direct experiences on the part of a knowing self. Vātsyāyana specifies the argument from memory as the primary one for the self's existence. Praśastapāda lists a number of arguments. Of particular interest are two. One is an argument by analogy : just as an action requires an agent, so a knowledge

requires a knower, that is, a conscious entity, and since by elimination no other substance will do, all of them being unconscious, a self must be postulated as the knower. The other is an argument from the ordinary use of words like "pleasure," "pain," etc., which are attributed to me in such a way that the attribution is not withdrawn when the body or senses are inoperative. The force of this last argument reflects a familiar Western argument which constitutes an important issue in what is called the "mind-body problem": if I felt pain when your body was pinched, wouldn't it still be "my pain"? And if so, this shows that pains are private to the self in a certain fundamental sense, and any attempt to reduce mental and affective states to physical or physiological ones is doomed. It is interesting to note that Praśastapāda feels himself entitled to use this argument despite the fact that he readily admits the yogis' ability to do what Westerners generally deem impossible — namely to inhabit several bodies at once, including bodies which ordinarily belong to someone else. Many Indians believed that a body may simultaneously belong to two selves, and one would expect that a pain caused in both selves by pinching their common body would "belong" to both. Thus although such a pain experienced by me would still be "my" pain, no doubt, it would not follow therefrom that no one else could share it, so that the Western doctrine of so-called "privileged access" is undercut for such a philosopher as Praśastapāda.

The first of the two arguments summarized in the preceding paragraph implies that knowing is like an action. As a matter of fact the Mīmāṃsakas hold that knowing *is* an act, which makes the inference to a knowing self even more straightforward. Jayanta Bhaṭṭa spends an extended section in an attempt to refute the Mīmāṃsā view that knowing is an act, and one might expect him to be less than enthusiastic about Praśastapāda's argument, inasmuch as it falls as soon as a disanalogy between knowing and action is admitted.

However, the notion that selves are only inferrable, not perceptible, while characteristic of early Nyāya-Vaiśeṣika, is largely abandoned later on. As early as Bhāviviktа we find the view expressed that the self can be perceived, and it is echoed by Uddyotakara, Vyomaśiva, and Udayana, who hold that the self is perceived by the internal organs of ordinary human beings and not just those of yogis. Udayana, particularly in *Ātmatattvaviveka*, develops the main line of inference as well, not only the argument from memory *simpliciter* but also a new version which stems from the experience we all have that there is a continuity in the flow of our ideas and impressions which can only

occur, according to Udayana, on the assumption that there is a knower underlying this succession and "correlating" its components.

It is very important to the Naiyāyikas that each aspect of their theory of selves be accepted. They deal at length with a variety of arguments addressed against the theory, and there can be no question of the sincerity and seriousness with which they treat the issues thus raised. It seems perfectly clear that their attitude here stems from the connection between the nature of the self and the professed purpose of philosophizing, namely as a preparation for the achievement of release. For example, Gautama makes the point in the fourth book of the *Nyāyasūtras* that it is by transferring our debts, troubles, and the *karma* resulting from our activities to a state where the self can handle them that we get into a position to master these sources of bondage. If the self were such that this transference were precluded, or if there were no self at all, liberation would be impossible to achieve.

With this in mind we may review the aspects of the Nyāya theory that are most subject to criticism, other than the thesis that the self exists. One evidently important theory is that of the plurality of selves, which Kaṇāda asserts is a truth inferrable from common experience as well as promulgated by scripture. However, doubts about the plurality of selves may well be raised merely by considering some of the qualities attributed to a self by the Nyāya-Vaiśeṣika theory. A self, according to this theory, is incorporeal, intangible, invisible, eternal, ubiquitous, partless, motionless. What sense can be made, under these circumstances, of there being an indefinite number of things answering to these descriptions ?

Praśastapāda argues that there must be many selves since it is evident that the qualities of one do not produce qualities of others. E.g., only I can be a locus of my pain, only I can know in direct fashion my internal states of body and mind. This, however convincing it may seem to be, must suffer in its impact when we reflect that each and every self is omnipresent according to the Naiyāyikas, for what is it that prevents self *A* from directly experiencing the internal states of body B, after all, if self *A* is by hypothesis present inside body *B* ? We have seen that yogis are granted this capacity anyway—what reason do we really have to deny it in principle to any self ? Indeed none, for we know that every self has it in him to become a yogi; given the will there is a way according to the Naiyāyika.

The doctrine that there is only one self, on the other hand, is espoused by an important rival school of Indian philosophy, namely Advaita Vedānta. Advaitins believe, specifically, that there is only one self and that the apparent plurality of empirical selves is a kind of illusion

reflected from, or constituting, their bondage. Vyomaśiva is perhaps the first of our philosophers to address himself specifically to Advaita on this topic, and he offers the standard argument. It turns on the challenge: whose is release? If there is only one self, then if anything is liberated it must be one self; but since the Advaitin wishes to hold that the supreme self is unsullied by bondage he must reject this view. But then the Advaitin cannot very well be a monist; he must admit plurality of selves at the present time, whatever may be his hopes and expectations about the eventual liberation of all selves.

As for the all-pervasive character of each self, Vyomaśiva argues that only on such a hypothesis can we explain the yogi's ability to inhabit many bodies simultaneously.

Śrīdhara enlarges upon the Naiyāyika refutation of Advaita. Where Vyomaśiva left off, the Advaitin will say that the appearance of plurality among empirical selves is due to a sort of cosmic ignorance (*avidyā*) or *māyā*. Śrīdhara, however, wants to know to whom this ignorance belongs? The question once again forces the Advaitin into a dilemma: if ignorance be visited upon the Supreme Self then this controverts Advaita in one way, while if it is the property of the empirical selves then he has admitted their independent existence. Śrīdhara also asks the damaging question: if there were only one self then when one of us is liberated wouldn't everyone become so? But that, he thinks, is absurd.

Why, though, do the Naiyāyikas hold that each self is intangible, motionless, partless, etc.? Primarily because they view the self as the knower, and they conceive psychological qualities to be *sui generis* different from physical ones. Atoms of earth, air, fire, and water are mobile, and constitute middle-sized objects which are also mobile and tangible. The internal organ is mobile, though not tangible: thus it is of less than all-pervasive dimensions. The other substances — *ākāśa*, space, time, and selves — are not atoms or composed of them, nor can they move around or be touched. Thus they are intangible, motionless, and all-pervasive. This does not mean that things may not move around "in" them, or that limited portions of them may not have specific locations. For example, that portion of *ākāśa* limited within the ear constitutes the hearing organ of an individual's body, and it is located where that body is and moves around with it. Likewise, reasons the Naiyāyika, that portion of a self limited within an individual's heart constitutes the knowing organ of that individual, and moves around with that individual body.

However, that account makes it all the more easy for the Naiyāyika

to hold that there is only one self, limited by hearts so as to pluralize knowers, just as there is one *ākāśa*, limited by ears so as to pluralize hearing organs. Why should not the Naiyāyika adopt that view, then ? Well, for one thing we do not share each other's pleasures and pains; each of our *karmas* is different. If we hold that there is only one self, then when one self is freed all are freed: this difficulty, which we originally thought of as a defect in the Advaitin's view, turns out to be a defect in any view — Advaita or not — which does not admit plurality of selves.

Nevertheless, Umesh Mishra tells us that at least one modern exponent of Nyāya-Vaiśeṣika thought that when all the selves become liberated there will be only one self. Mishra argues that even then the selves will be differentiated, for the connection between each self and its internal organ is supposed to be eternal and indissoluble.[32]

The motivation which produces the Nyāya-Vaiśeṣika theory of selves is complicated by the fact that the self is the seat not only of cognitions and affective states but also of volitions and desires. Whereas a knower may well be conceived, if not as all-pervasive, at least as without any spatial location in particular and thus in a sense everywhere and nowhere at once, the seat of will and desires is not so easily conceived. For willing and the like are among the causal conditions of overt action involving motions of the body and limbs which belong to the agent. If a self is conceived as an agent as well as a knower, the theory of the incorporeal self becomes even less easy to assimilate. Knowers may not move, but agents seem to.

There is practical unanimity among our philosophers that the self is the agent of our actions. There is no question that selves do not move. The theory is rather that agency does not require mobility. Kaṇāda, for a start, in inferring the existence of other selves from their bodies' activity, suggests that selves are agents of their bodies' actions. Vātsyāyana is quite explicit: he argues that moral responsibility requires a locus which persists, and that the self is that locus. Thus selves are responsible agents of the activities which breed *karma* and bondage. Vātsyāyana by no means limits the function of the self to a witnessing consciousness. Praśastapāda also speaks of selves as agents.

The dissenter among Naiyāyikas on this point is Śrīdhara. He sides with the Sāṃkhya-Yoga position that the self is neither the agent nor the enjoyer of the results of its actions; it is merely a witnessing consciousness. The notion that the self is the agent is a result of a wrong notion, produced by *karma*, which must be dispelled in order

for us to achieve liberation. The agent is the body, and it is the body which enjoys pleasure and pain—or at any rate, it is the embodied self, not the pure self.

H. God: A great deal has been written about the question as to whether the authors of the *sūtras* were theists, or even mention God. It seems pretty clear that Kaṇāda does not mention Him. God *is* mentioned in the *Nyāyasūtras*, but here the question is whether the reference occurs in the words of the author or in a speech representing an opposition view. There is much to be said for the latter interpretation.[33]

At any rate by Vātsyāyana's time Nyāya has become theistic, and Praśastapāda makes room for Him. We have seen earlier that the Nyāya-Vaiśeṣika conception of God is very different from most theologies, however. Vātsyāyana understands God to be a self with the various qualities selves generally plus a number of special, unique qualities. For one thing, God, like other selves, has *karma*, but all of His *karma* is of the meritorious kind. His knowledge is entirely accurate. He has no wrong notions. If He is not omniscient, He is capable of understanding everything that needs to be understood in order that He may perform His functions. These functions include the control of the operation of the *karma* which binds other selves, as well as serving as one of the causal factors involved in the production of the universe at the beginning of each cycle, and bringing it about that appropriate fruits are forthcoming from human actions. God has all the yogic powers. He is by no means a liberated self, for He still has desires. His desires are always satisfied, since He is so powerful, and since His ideas are always benevolent He acts toward other selves as a father toward his children. Vātsyāyana does say, however, that God depends on human efforts in regulating the cosmos; He cannot do it all Himself.

Uddyotakara, commenting on these remarks, adds that though God depends on human effort in order to create the world, He does not depend on others *per se*. It is, indeed, the *adrsta* or *karmic* potentialities of the selves which determine the kinds of bodies inhabiting the world which God creates. The initial action of His creativity occurs when he causes the atoms to make contact at the outset of a cycle; what contacts occur is determined by human dispositions. As with other selves, as we have just seen, agency does not imply mobility; God is omnipresent and eternal, or more precisely, everlasting. But whereas ordinary selves require embodiment in order to exert agency, God manages this without a body; in this he transcends human limitations. Another respect in which God differs from the

other selves is this: whereas consciousness is adventitious for an ordinary self, present only some of the time, God is always conscious and thus, in another sense, omniscient.

Not everyone agreed with Uddyotakara about God's ability to act without a body. Śaṃkarasvāmin appears to have thought that God has not only one but several bodies—perhaps the sorts of bodies in which the various gods known to Hindu tradition appear to mortals. Vyomaśiva speculates that perhaps the atoms themselves are God's body. Udayana in the *Kiraṇāvalī* suggests that God assumes a body for certain activities, such as producing contact between atoms and for exhibiting His glory for the improvement of mankind, but that for other activities he does not need a body. An activity for which he needs no body Udayana says, is the composition of the Vedas, a function which is attributed to God by Naiyāyikas in opposition to the Mīmāṃsā view.[34]

Our philosophers developed some doubts about the description Vātsyāyana gives, which makes God rather like other selves as far as His qualities go, except that He has a few more. Where Vātsyāyana says God has meritorious *karma*, Uddyotakara holds, along with Vācaspati, that God has no *dharma* at all, that is, that the question of his moral character does not arise. Thus, for these and for most of the Naiyāyikas subsequently one cannot say that God is benevolent, and to this extent the problem of evil in its Western theological guise cannot arise. Likewise, Śrīdhara raises the problem whether God is a liberated or a bound self; his answer is "neither, since what has never been bound cannot be free." This suggests that although in some formal way God's qualities may parallel those of the rest of the selves, His qualities are actually very different in that they are not subject to being involved in the *karmic* mechanism as human knowledge, desire, and volitional activity are.

We come now to survey the Naiyāyikas' arguments for the existence of God. As noted before, Udayana's *Nyāyakusumāñjali* is *the* classic work, admired by all Indian philosophers whatever their persuasion for its thoroughness and subtlety in developing and defending theism. But the topic of arguing for God's existence comes up in many of our philosophers' works, and Udayana owes much to his predecessors in this matter.[35]

Broadly speaking, there are three major varieties of theistic argument we shall need to pay attention to. First, there is a cosmoteleological argument, reasoning from the world as effect to God as the purposive agent which is its cause. Secondly, there is an argument from the existence of language and thought to a Being who authored

the first words, the Vedas, and whose thoughts preceded those of the rest of us. Finally, there is a kind of negative ontological argument, introduced by Udayana himself, to refute all arguments for the nonexistence of God.

1. *Cosmoteleological Argument* : The basic form of this, the main argument offered by all Naiyāyikas, is as follows:

(A) This world is produced and destroyed by a conscious agent, since it is a thing which is subject to production and destruction, like a pot.

A word may be in order about the format of Indian arguments, since the topic of inference still lies ahead of us. An argument has three members: a thesis, a reason, and an example (or sometimes more than one). In the present example the thesis is: the world is produced and destroyed by a conscious agent (= God). The reason is: because the world is a thing which is subject to production and destruction. The example is: like a pot. The strategy of argument in philosophy in matters such as this one is to present an argument in the proper form and then consider one by one the criticisms that have been or might be brought against the argument's validity. If it passes the tests of a valid argument, and is not vitiated by any faults brought against it by opponents, then it is to that extent vindicated and acceptable as doctrine.

This argument I call "cosmoteleological" since it appears to combine into one argument the two Western proofs of God's existence usually dubbed "cosmological" and "teleological." The cosmological argument reasons to a first cause; the teleological argument reasons from signs of a plan in nature to a conscious agent who carries out his plan. The Nyāya argument collapses these separable claims into one, likening the world to a pot which is both an effect and an object which was created according to plan. The argument is by analogy : just as the pot could not have come to exist without an intelligent maker, so it is with the world. Now it is up to the critic to knock the argument down.

There are various ways of going about knocking an argument down. One way is to find a counterexample to the general rule which is operating as the unexpressed "major premise" of the argument. Here that unexpressed premise is "whatever is created and destroyed is created and destroyed by a conscious agent." A second way is to present an argument which demonstrates a thesis contradictory to the one presented in the argument in question. Both these methods of refuting the theistic position are set forth and dealt with in our texts.

The basic complaint is that of the materialist Cārvāka. He is given

an extended hearing in the first chapter of the *Nyāyakusumāñjali.* His view is that things come into existence by their own nature without any cause, and Udayana shows him step-by step that causal regularity requires that the cause be distinct from the effect and have a character of its own; otherwise the concomitance we see occur would be quite as likely to occur anywhere else, and at any time. In short, Udayana summarizes the theory of causal relations which was set forth earlier.

But one does not have to go so far as the Cārvāka. One can merely offer a counterexample, an instance of something which, though produced, is not produced by a conscious agent. Jayanta considers such an opponent, who cites as his counterexample "big trees." Surely, he submits, big trees are not created by any conscious agent, and so the unexpressed major premise is not a case of regular concomitance. Jayanta's response to this is that at best it is unclear whether big trees are or are not the products of a conscious agent's work. The opponent, thinking he sees his way to a conclusive refutation, proceeds to suggest that since it is uncertain whether or not all products are products of intelligent creators the supposed law is unverified and so not a proper basis for an inference. But Jayanta disagrees. That all effects are the products of conscious agency is, he thinks, provable by another inference, as follows:

(B) Whatever is created and destroyed is created and destroyed by a conscious agent, because it has parts, like a pot and unlike atoms.

That is, he claims that though the original "major premise" is unverified it is at least confirmed by the inference (B) just cited. Thus he rules out "big trees" as a counterexample on the ground that since trees have parts, and since pots, which have parts, have intelligent makers, there is evidence to think that big trees have intelligent makers as well.

It will be apparent that if (A) depends on (B) in this way it will be clearer if we reformulate the cosmoteleological argument as follows:

(C) The world is created by an intelligent agent, because it has parts, like a pot and unlike atoms.

Just this form of the argument is found in the quotations from Aviddhakarṇa, and we shall consider the argument in its form as either (A) or (C) from now on.

If Jayanta's way with counter examples is allowed to stand, the opponent is forced to some other strategy. An apparently telling refutation of the cosmoteleological argument can be displayed, it may be thought, by producing not just counterexamples but whole counterarguments against the major premise of either (A) or (C). Jayanta—whose

discussion of theistic proofs is second only to Udayana's in its thoroughness—is ready with illustrations of such counterarguments. For instance, consider the following counterargument:

(D) A mountain is not a product, because it is not man's handiwork, unlike a pot.

Jayanta's own argument against this is *ad hominem*—he shows that each of the opponents who might offer this argument believe something which is inconsistent with it. But more basically we can easily see that the thesis of (D), which affirms that there are uncaused entities which yet have beginnings and ends, falls under those arguments against the Cārvāka which we just noted.

The reader will perhaps have noticed that neither argument (A) nor (C) mentions God, and that indeed the cosmoteleological argument as I have formulated it properly speaking has two steps, one step arguing that the world is created by a conscious agent, the second identifying this conscious agent as God. A good many of the arguments cited in the literature against the cosmoteleological argument are directed toward the second step rather than the first.

These counterarguments are generally intended to prove that God is unsuited to the role the Naiyāyika assigns him, namely, He is unsuited to create. For example, Uddyotakara cites the following argument by way of objection:

(E) God is not the cause of the world, because He is immobile, unlike a potter.

Uddyotakara's answer to this it that the potter is immobile also, that the objector has mistakenly identified the potter with his body (a revealing identification associated with materialist and skeptical views by orthodox Indian philosophers). The potter is actually, as we have seen, an all-pervading self which has become temporarily associated with a body, and being all-pervading, the self, strictly speaking, cannot move. But this argument leads to an associated one, which is perhaps the most common objection to the cosmoteleological argument found in the literature.

The counterargument to which I refer is the one about God's body. It is found in Jayanta, Udayana, and many others. It may be stated simply:

(F) God is not a cause, because He lacks a body, unlike men.

This appears to have been a fairly compelling argument, serious enough to have produced some dissension in the ranks. Uddyotakara asserts that God has no body; Jayanta defends this view. But as we have seen Śaṃkarasvāmin says God has not one but several bodies, and Vyomaśiva speculates about what God's body may be. An

especially instructive writer is Udayana, who seems to affirm both sides of the question. In the *Ātmatattvaviveka* he asserts that God is capable of creating despite his lack of a body, and in the *Nyāyakusumāñjali* he pictures God as out of time altogether. However, in *Kiraṇāvali* he admits that God assumes a body on certain occasions; among those occasions are times when he is creating physical things, exhibiting his glory to mankind, etc. Even in the *Nyāyakusumāñjali* there is some inconsistency, for Udayana at one point says that atoms serve the same purpose for God as the human body does for an individual self. Udayana seeks to save the inconsistency by pointing out that it is nevertheless the case that God does not have a human body, and that it depends on how one chooses to define "body" whether God has one or not.

Uddyotakara and Jayanta are able to deny any kind of body to God by virtue of their denial that God ever *wills* anything. Having abandoned any very close analogy between the way God creates and the way a potter creates, they do not need to heed the force of (F). Jayanta has additional arguments as to why God should not be viewed as capable of embodiment. For one thing, if God had a body there would have to be another God to create that body, and so on ad infinitum. Furthermore, even if God had a body it would not help Him in controlling the first motions of the atoms—Jayanta claims it would take Him too long!

Jayanta, indeed, does not offer any form of the cosmoteleological argument that we have reviewed so far, and that is only consistent with his views as we have summarized them. His major argument for God is from the necessity of the Vedas' having an author—the second major type of theistic argument to which we shall turn shortly. But Jayanta does incidentally offer a modified form of the cosmoteleological argument, one which does not imply that God has motives and desires, however. This argument goes somewhat as follows:

(G) The world is caused by a conscious agent, because the world is an effect of the sort whose occurrence presupposes the existence of someone who knows the process and motive of its production, like a jar.

(G) differs from (A) and (C) in that it does not suggest any motive or desire on God's part but merely implies that God is aware of the course of creation and that this awareness is one of the causal factors involved in the world's production. Thus we are not required to view God's creative acts analogously to human creativity, and as a result there is no reason to credit God with any sort of body.

Udayana's problems stem from the fact that he credits God with

motives. Jayanta criticizes this view of God with gusto. If God acts from motive, this suggests that he is lacking something, that he has needs; but this is contrary to the conception of Him as spiritually exalted. To this a critic might reply that if God does not act from motives, then He must act senselessly, like an insane person. Jayanta's answer is that the dilemma does not exhaust the alternatives. God, Jayanta thinks, creates out of compassion. The obvious retort to this is that if God is compassionate why does He allow calamity and misfortune to strike mankind? But we have already seen that whatever the force of this argument may be for a Westerner who believes we have only one life to live, for the Indian it is one's own previous *karma* which produces misfortunes; God is not responsible for them. Indeed, God's compassionate role is limited to providing ways for men to work off their *karma* in more appropriate circumstances, at least as far as we learn from Jayanta.

A different group of counterarguments raises the question why God, and not merely ordinary selves are needed to explain the creation of the world. One reason, in answer to this, is that God is omniscient where ordinary selves are not, and that an omniscient agent is needed to create the universe. Counterarguments to this are found in Vācaspati Miśra and Udayana's writings. For example Vācaspati gives:

(H) The world is not made by an omniscient agent, because it exists, like a pot.

The answer Vācaspati gives to this is that the world must have been made by *some* agent—*ex hypothesi* this is not in question—and since ordinary humans have only limited knowledge and power they could not have done it; thus it must have been God's work.

Udayana has a different objection in the fourth book of the *Nyāyakusumāñjali*:

(I) God is not an omniscient agent, because his knowledge is invalid.

This argument belongs to the Bhāṭṭa Mīmāṃsaka, who thinks that knowledge is not valid unless it tells us something we do not already know. Since God already knows everything, he has no valid knowledge! Udayana answers with a critique of the Mīmāṃsā view of validity.

It is possible that Vātsyāyana had in mind the necessity of showing that God, rather than ordinary selves, created the world when he seems to interpret the puzzling *sūtra* passage as arguing as follows:

(J) God is a causal condition for the connection between human

actions and their fruits, because this connection is not mechanical, like the relation between nutrition and life.

That is, whereas the products of man's handiwork—e.g., pots—are mechanical in their workings, a special kind of cause needs to be postulated to explain the production of organic, nonmechanical relations, and God is that special kind of cause.

2. *Arguments from Language and Thought*: As we have seen, Jayanta bases his claim that God exists on His authorship of the Vedas. The Mīmāṃsaka thinks the Vedas do not have an author. In order to safeguard the validity of the Vedas, he argues that they must be conceived as authorless. Jayanta's reply to this is that some passages in the Vedas are clearly false, and so the scriptures cannot be considered to be valid *in toto*. If the Mīmāṃsaka tries to explain the falsity of portions of the Vedas by appeal to the fact that those passages, unlike the others, have human and fallible authors, then he gives the show away: if those passages have authors then why shouldn't the rest of them?

Udayana offers several arguments for God as the author of the Vedas. Among them are these:

(K) The knowledge embodied in the Vedas is due to faultless causes, because it is valid, like perceptual knowledge. And the faultless cause of the Vedas is God.

This argument will work for most opponents, but not for the Mīmāṃsaka, who needs to be convinced that validity depends on a faultless cause and not merely on the absence of faults. The Mīmāṃsakas are willing to admit that the Vedas are faultless, but they think that that is their nature. Another argument is:

(L) The Vedas have an author, because they constitute a book, like any other book (e.g., the *Mahābhārata*).

Alternatively this argument might appeal to the fact that other "Vedas", notably the authoritative books of medicine, *Āyurveda*, are admitted to have authors; so also with the earliest Vedas themselves. Of course this reasoning can be met by merely holding that the Vedas are not like other books, and that the *Āyurveda* is not really a Veda. Udayana is aware of these possible retorts. He offers arguments such as (K) and (L) as arguments likely to convince, say, the Sāṃkhyas, but not the Mīmāṃsakas. For the Mīmāṃsā opponents he has a different set of arguments.

To convince the Mīmāṃsaka Udayana offers such arguments as these:

(M) The Vedic injunctions must have an enjoiner, because they are injunctions, like ordinary commands.

And, of course, this enjoiner must be God. Udayana spends some time making the connection between injunctions and their enjoiners. He argues that injunctions cannot be understood at all unless there is someone whose intentions they are designed to express. The Mīmāṃsakas are provided with a number of replies, none of which are admitted to be satisfactory. This discussion takes the reader into intricate details of grammatical theory, to which we shall return below.

Another argument directed toward Mīmāṃsā is this:

(N) The word "God" in the Vedic injunctions denotes an existent entity, because the sentences in which it occurs are injunctions, like ordinary injunctions.

If I say "bring the cow" and am not deceiving you, you may assume that there is a cow for you to bring. As the Mīmāṃsakas do not believe Vedic injunctions can be deceptive, injunctions to worship God in the Vedas show that God exists.

3. *Negative Ontological Argument*: We may in conclusion, pause to notice that Udayana is, as far as can be discerned, the inventor of a technique by which all counterarguments intended to prove the non-existence of God can be disposed of. The technique is simple. According to principles governing the validity of an inference is the principle that the terms of the inference must denote. That being the case, any inference which begins "God does not exist because..." must ipso facto be fallacious, since if the statement "God does not exist" is true the inference is necessarily invalid, and if it is false then the inference is invalid since God does exist.[36]

Udayana suggests that this way of handling counterarguments works against the kind of argumentation called *tarka* as well as against standard inferences. Such a *tarka* argument might be, for example,

(O) If God were the creator, then he would have possessed a body, suffered pain, etc.; but He does not have a body, suffer pain, etc.; therefore, God is not the creator.

According to Udayana this commits the fallacy known as *āśrayāsiddhi*, the fallacy of "unproved locus." *Tarka* arguments are formally similar to (O), in that the first member is a counterfactual conditional proposition, the second denies the consequent of the conditional, and the conclusion is the denial of its antecedent. However, the first sentence in (O) is not a counterfactual conditional at all, argues Udayana, since a counterfactual conditional is always of the form "if *X* were to have property *P* then it would have property *Q*" where it is assumed that *X* exists. How, after all, could one demonstrate that the second member of (O) is true? In order to show that God does

not have a body, etc., one must produce an inference or some other *tarka* argument to show it: this will again either require that the term "God" denote or else force the question back to yet another argument, this regress either being infinite (which constitutes a fault) or terminating in an inference which requires God to exist.

It would seem that this line of argument, if it proves anything, proves too much, for by recourse to it we can refute any inference or *tarka* argument which purports to prove the non-existence of something. Similar problems are known in recent Western philosophy. Bertrand Russell, for example, considered the problems raised by the sentence "the golden mountain exists." Meinong had postulated a whole realm of subsistent entities to stand as the referents of the subject terms of such propositions. Russell thought this too high a price to pay, and suggested expanding the troublesome sentence as follows: "there is at least one thing which is both gold and a mountain, and there is no more than one." This statement, he claims, is false because the first conjunct is false, and no additional ontological realm is needed for the referents of terms in false sentences.[37] But it is not clear that a similar line of thought will resolve the problems raised by such a statement as "God does not exist." And indeed Russell would find this statement not false but meaningless, because its subject term fails to denote.[38] Both "God exists" and "God does not exist" are, in his view, meaningless since their subject-term fails to denote. Quine has suggested a modification of the Russellian position which might seem promising here. He suggests reconstruing names and descriptions in terms of appropriately chosen predicates, thus adopting the Russell analysis of the sentence about the golden mountain (which Russell analyzed into statements in which the troublesome description was replaced by the predicates "..is golden" and "..is a mountain") but extending it further to cover proper names as well as descriptions. Quine's example is "Pegasus exists." Quine will render this as "there is exactly one thing which pegasizes."[39] But Quine's solution depends on his theory that predicates do not refer, and this thesis is not accepted by Naiyāyikas.

A likely line of response to Udayana's quick way with denials of existence, given the restrictions within which Nyāya assumptions force us to work, is to suggest that "*X* does not exist" should be understood not as denying the occurrence of something satisfying the description or name "*X*," but rather as affirming the occurrence of something which is properly described as "absence of *X*." Thus "God does not exist" should be read as "there is an entity properly described as

'absence-of-God,' which does not name God and so does not commit the fallacy which Udayana has in mind.

Udayana, however, anticipates this response. An absence must be the absence of something, and that something is called the "counterpositive" of the absence. Now Udayana asserts that the counterpositive of an absence must exist, that is to say, that the expression "absence of *X*" refers only if "*X*" refers. There may be difficulties with this view E.g., if in order to deny the existence of, say, a squared circle we must affirm the existence of the absence-of-squared circle, and this affirmation to be meaningful requires that squared circles exist, then we shall never be able to deny the existence of anything in an absolute way. However, there is an answer that can be given to this. How satisfactory an answer it is requires further analysis. The answer that can be given is that when Udayana requires that the counterpositive of an absence exist he is not requiring that an entity answering to the description of the counterpositive exist, but rather that at least entities corresponding to the component parts of the description exist. In the example offered, although there are no squared circles, there are squared things and there are circles. Likewise, although there are no sky-flowers, there is a sky and there are flowers.

I. *Darkness*. There are just 9 kinds of substance, according to Nyāya-Vaiśeṣika ontology. Why only 9? Because of economy; there is no point in admitting more kinds of entities than one needs to explain what needs to be explained. And all other things which might be supposed—and are on occasion by other philosophers supposed—to be substances can be shown to belong to other, already admitted categories.

The main example of this that our philosophers regularly allude to is the case of darkness (*tamas*). Kaṇāda raises the question whether darkness is a substance, and answers in the negative. What does he think darkness is, then? It is absence of light, he says, and thus does not need to be added as a separate entity. Uddyotakara varies this slightly. According to him "darkness" denotes things which are not apprehended due to the absence of light. Since such things might be of various sorts, the question "to which category does darkness belong?" has no single answer.

The major defector from this view that darkness is an absence is Śrīdhara, who thinks it is a quality—namely black color. His is perhaps the most thorough treatment of the question; he is aware he is departing from tradition. Darkness is not a substance, Śrīdhara argues; if it were it would have to be a material substance (not being

ubiquitous or eternal), and since a material substance must be made up of tangible atoms and darkness is not tangible, darkness is not a material substance and thus no kind of substance whatever. But it is not absence of light either, for it is black, and black is a positive color. Then why does Kaṇāda identify it with the absence of light? Well, says Śrīdhara, what he is trying to do is identify the conditions under which we (sometimes) see black, namely in the absence of light.

Varadarāja decries this view: darkness cannot *be* black color, since it *has* black color! But what his positive view is, is difficult to say: absences, after all, do not have colors any more than qualities do.

6

QUALITIES AND MOTIONS

The second of the 7 Vaiśeṣika categories is referred to under the Sanskrit term *guṇa*, and this term is usually translated by the English word "quality." The implications of "quality," as that term is normally used in Western philosophy, do not altogether match those of *guṇa* in Nyāya-Vaiśeṣika, however, since Western philosophers generally think of qualities as repeatable properties, while the Vaiśeṣika *guṇa* is not repeatable. Thus, in Nyāya a white substance has a particular white *guṇa* of its own, different from the white *gunas* of other white substances and whiteness, the universal property, resides in the several white colors (not in the substances). Although this view of qualities as particular characteristics of particular things is found in Western thought, it is not common there.[1]

Kaṇāda lists 17 qualities, and adds at the end of his list "etc.," thus inviting later commentators to add a few more. The canonical number, arrived at by the time of Candramati and Praśastapāda, is 24. In the list given below, the first seventeen are Kaṇāda's original entries, the rest additions of later writers, although of course they claim that in specifying these particular items they are merely spelling out Kaṇāda's "etcetera" !

1. color
2. taste
3. smell
4. touch
5. number
6. contact
7. disjunction
8. farness
9. nearness
10. dimension
11. separateness
12. knowledge
13. pleasure
14. frustration
15. desire
16. hatred
17. effort
18. weight
19. fluidity
20. viscosity
21. dispositional tendency
22. merit
23. demerit
24. sound

Most Naiyāyikas accept the canonical list of qualities, although theories developed about some of them which might just as easily have led later philosophers to add more qualities and thus increase the total number. As with many things in India, the number of items in a list acquires a kind of authority from traditional acceptance, and innovators frequently accommodate their ideas to the traditional number rather than change it.

One innovator who was not so accommodating, however, would seem to have been Bhāsarvajña author of *Nyāyabhūṣaṇa*. He disallows 6 of the list—number, dimension, separateness, disjunction, farness and nearness—and more radical yet, argues that motions should be accounted qualities. We shall review his reasons below.

There are not very many general things that can be said about qualities as such. The list is a heterogeneous one, so much so that in Navya-nyāya times Raghunātha Śiromaṇi claims that there is no common characteristic that these 24 things have in common, and so presumably no category. We shall be forced to deal with each of these 24 items independently in order to understand their nature. Of the few general distinctions among qualities, however, two appear to be amenable to immediate treatment: first, the distinction between specific and generic qualities, and second, that between locus-pervading qualities and those which are not locus-pervading.

The distinction between specific and generic qualities is not altogether easy to describe and it is dubious of what use the distinction is anyhow. One use to which it is put by Vātsyāyana is in defining an "individual" (*vyakti*). An individual is a material thing (*mūrti*) which is a locus of specific qualities. Praśastapāda lists the specific qualities as follows: color, taste, smell, touch, knowledge, pleasure, frustration, desire, aversion, effort, natural fluidity, viscosity, mental traces (a kind of dispositional tendency), merit, demerit, and sound. The rest are generic qualities: number, size, separateness, contact, disjunction, farness, nearness, weight, accidental fluidity, and the variety of dispositional tendency called *vega*, i.e., impetus or velocity.

It should not be supposed[2] that the distinction is between nonrepeatable qualities. All qualities are nonrepeatable in the sense that they cannot be shared indiscriminately by any number of distinct substances, separated randomly in space and time. Udayana's *Lakṣaṇāvalī* gives the following definition of a specific quality of earth: it must (1) occur in earth, (2) not occur in anything which is not earthy, and (3) be a quality. According to Vaiśeṣika theory smell is the only specific quality of earth; the fact that other things smell is explained by the supposition that such

things have earthy particles mingled with their other constituents. In this way color is a specific quality of fire, touch of air, and sound of *ākāśa*; taste, natural fluidity, and viscosity are specific qualities of water; the rest of the specific qualities in Praśastapāda's list are all qualities of selves. In contrast, various substances may come into contact and become disjoined, are numerous and have a size, weight, and velocity. Both earth and fire are supposed to have accidental fluidity.

A rather more important distinction is that between qualities which pervade their loci and those which do not. This distinction is first alluded to in the *Daśapadārthaśāstra*, which lists the following as locus-pervading: color, taste, smell, touch, number, dimension, separateness, farness, nearness, contact, disjunction, fluidity, viscosity, weight, and velocity. All the others are non-locus-pervading. Praśastapāda qualifies this: contact and disjunction are sometimes locus-pervading, but sometimes not, as for example when atoms contact *ākāśa*. By Śivāditya's time the doctrine has become further modified: he excludes contact, disjunction, and velocity from the list of locus-pervading qualities, and makes an overall threefold distinction: those which are always locus-pervading (Praśastapāda's list minus the 3 just mentioned); those which are always non-locus-pervading, namely contact, disjunction, pleasure, frustration, aversion, dispositional tendency, merit, demerit, and sound; and a group of qualities which are sometimes locus-pervading and sometimes not, namely knowledge, desire, and effort.

It will be seen that contact and disjunction, accounted as locus-pervading in Candramati's list, have completely changed their status in later times and become non-locus-pervading. To see why this happened we may consider Śrīdhara's discussion of the matter. Śrīdhara starts with the question: when a monkey, say, is in a tree, why not say, rather than that there is contact between the whole monkey and the whole tree, that there is contact between part of the monkey and the branch of the tree? Should not the principle be that contact connects the smallest portions of the whole which (according to ordinary speech) are said to touch? Śrīdhara answers that this principle is unacceptable, because when the monkey and the tree are said (in ordinary speech) to be in contact all that will really be in contact will be certain atoms "contained" in the monkey and the tree. Now since these atoms are invisible, the contact will be also, and as a result our common-sense judgment becomes inexplicable. Furthermore, as we have seen, the Nyāya-Vaiśeṣika view of a whole is that it is a unit, produced from, but not composed of, its parts. It is consistent

with this that a whole *A*, when it is in contact with something *B*, is itself as a unit in contact with *B*. Therefore, concludes Śrīdhara, we must resist the temptation to follow ordinary usage by construing contact as relating parts of things rather than wholes.

So far, then, we understand contact as holding between two wholes whose parts may, speaking in common-sense terms, be seen as impinging on each other—e.g., as the monkey's paw touches the branch of the tree, according to our perception—and yet the contact is a relation between the whole monkey and the whole tree. But this understanding is not sufficient for full appreciation of the nature of contact, for there are other kinds of contact. There are several different kinds of substances in Vaiśeṣika: there are gross objects—wholes generated from smaller objects—but there are also atomic entities which have no parts, and there are all-pervading substances which likewise have no parts. How should contact be construed when applied to relations among such entities? In particular, we may have the following cases: (1) contact between two atoms; (2) contact between atom and gross object; (3) contact between atom and all-pervading object; (4) contact between two gross objects; (5) contact between gross object and all-pervading object; (6) contact between two all-pervading objects. We have been discussing case (4), and Śrīdhara has concluded that contact of this type is contact between the whole gross objects and not their parts. But now one may well ask the following question: given that two wholes, *A* and *B*, are in contact, does it follow that all their parts are in contact? The answer given in later Nyāya-Vaiśeṣika is "no"; we can see that only the monkey's hand and the branch are in contact, not the other parts. Thus, contact is non-locus-pervading, and the meaning of that phrase is that when contact inheres in a pair of substances it does not inhere in all of its parts. Or so it would seem.

The reason that this will not quite do is that cases (1), (2), (3), (5), and (6) all involve objects which have no parts, and yet contact occurs among such substances. Is contact locus-pervading or not in these other cases? One might suppose that it would not matter much one way or the other, but one would be wrong. It makes a good deal of difference, for the Naiyāyika's defence against a certain Buddhist argument turns on contact being non-locus-pervading in case (1). The Buddhists argue that atoms cannot combine to form larger objects, since the supposed contact between two atoms can be neither locus-pervading nor non-locus-pervading. If it were locus-pervading, argues the Buddhist, then if atom *A* is in contact with atom *B*, and atom *B* with atom *C*, the resulting group cannot make up anything

bigger than the original size of *A*, since all parts of *A*, *B*, and *C* must touch. Gross objects can never be built in this way, he says. On the other hand, if contact is non-locus-pervading, then atoms have parts, which produces an infinite regress and defeats Vaiśeṣika theory.

The form of the Buddhist's argument is as follows. Dilemma: either contact is locus-pervading or it is not. If contact were locus-pervading, gross objects could not be produced, but according to Vaiśeṣika they are. Therefore, contact is not locus-pervading, that is to say, it is non-locus-pervading. But to be non-locus-pervading is to be a relation such that it holds between two objects but not between all of their parts. Therefore, if the contact between two atoms is non-locus-pervading the atoms must have parts, and this contradicts Vaiśeṣika theory.

One method for dealing with this dilemma may come quickly to the reader's mind: it is to deny the inference from not being locus-pervading to being non-locus-pervading. That is, one might say, if "contact is locus-pervading" means (W) "contact holds between all parts of those things in contact, and things in contact have parts," then "contact is not locus-pervading" denies (W); but it is consistent with the denial of (W) that some things in contact have no parts, and it does not follow that contact is non-locus-pervading in the sense defined above. The Naiyāyika does not particularly welcome this way out of the dilemma, however. For it leaves him open to the following argument. Suppose it were his view that contact among ātoms is neither locus-pervading nor non-locus-pervading (since atoms have no parts). Then arguments of the following sort would not be allowed: "contacts between atoms produce dyads, because they are contacts, like contacts between gross objects." This argument would fail because by hypothesis contacts among atoms are not like contacts between gross objects, the latter being non-locus-pervading whereas the former are neither locus-pervading nor non-locus-pervading. And if this argument fails, the Naiyāyika has no good way of refuting any opponent who wishes to dispense with atoms altogether.

So the Naiyāyika takes a different course. He submits that all contacts, including those between partless substances, are non-locus-pervading. Clearly "non-locus-pervading" cannot mean what we thought it meant before. Rather it now means something like this: contact has a property *phi* such that if two things are in contact and both of them have parts, some of the parts are not in contact. The point is that the property *phi* is present whether or not the conjuncts have parts.

It must be admitted that, though this explanation may be sufficient to justify calling contact non-locus-pervading, it is by no means clear even yet why, for example, pleasure is deemed non-locus-pervading. The psychic qualities—pleasure, frustration, knowledge, desire, effort, merit, and demerit—are qualities of selves, and by hypothesis selves are without parts. Why call them "non-locus-pervading," then? The answer would seem to be that, although selves, *ākāśa*, space, and time are strictly speaking without parts, yet they have what might be called "quasi-parts," since portions of these all-pervasive substances can become distinguishable by virtue of their being limited inside a body, or an ear, or objects located at particular points in place and time. Thus the qualities of these substances are to be called "locus-pervading" only if it is true that, if such a substance has quality *Q*, all its quasi-parts have *Q* also. Śivāditya's classification becomes somewhat more intelligible now. His ambivalent conclusion about the 3 qualities of knowledge, desire, and effort is probably intended to allow these qualities to God. In the case of God, if he has quasi-parts (e.g., when he shows himself in an *avatāra* as Krishna, etc.) those, quasi-parts share His knowledge, desires, and volitions. Ordinary selves, on the other hand, are only adventitiously intelligent, desirous, and striving; at least upon liberation, these qualities will disappear. Pleasure, frustration, hatred, merit, and demerit are not, in Śivāditya's view, qualities of God but only of ordinary selves: their adventitiousness, therefore, requires that they be classified as non-locus-pervading.

1. *Color, Taste, Smell, Touch*: Since many of the things that a Vaiśeṣika needs to say about color are also appropriate, with suitable replacements, in describing taste, smell, and touch I shall treat them together here.

We have just seen that color is a locus-pervading quality, and this raises an immediate question. To say that color is locus-pervading is to say that all the parts of the substance in which it inheres are colored; but among those parts are the ultimate atoms, which are invisible—so how can they be said to be colored? Well, says the Naiyāyika, they *are*, so we must postulate an unmanifested color (*anudbhūtarūpa*) in those parts of colored substances which are below the threshold of perception. This convenient hypothesis also allows an explanation of why we do not see the ray of light which is supposed to emanate from the eye when vision is in progress; its color is unmanifested. Likewise taste, smell, and touch may be unmanifested also.

Earthy, watery, and fiery substances may possess color. A further classification arises from the theory of "cooking": it involves distinguishing between colors which are produced by chemical change (*pākaja-*

rūpa) and those which are produced in a substance from the colors of its parts (*apākajarūpa*). The former kind of color serves as a causal factor in the production of colors of shades different from its own—thus in cooking a gray atom may become red. The latter kind of color, however, may only produce a further color of the same shade.

This raised another problem. Consider a substance with a mottled surface of more than one shade. Nyāya-Vaiśeṣika insists on treating this substance as a single entity with one color of its own, but surely it is evident that it has several colors. Does this mean that one thing can be both, say, red and green all over at once? Uddyotakara seems to have originated one sort of answer to this, which is that in the list of shades one has to count as one kind of color that called "variegated color" (*citrarūpa*). (Likewise there is variegated taste, according to Śivāditya.). We are told[3] that the author of the *Nyāyabhūṣaṇa* rejected this notion of variegated color. It is interesting in this connection to note that Aparārkadeva, who so frequently follows the Bhūṣaṇakāra, deviates in this instance (at least if the doctrine of the *Bhūṣaṇa* has been accurately reported). Aparārka allows *citrarūpa*; he remarks that this type of color is unusual in that it has a number of contradictory universals inhering in it at once—redness, greenness, etc.—but avers that this is no defect. Speaking generally, once again, it will be evident that the doctrine of variegated color follows from the theory that color is a locus-pervading quality together with the assumption that each visible substance must have one and only one color. But it also should be noted that the admission of variegated color vitiates an earlier assumption we had occasion to note, namely that a color not produced by cooking only produces further colors of the same shade. Clearly, variegated color in a whole is produced from reds, greens, etc., in its parts. This is presumably the principle Aparārka is willing to abandon.

Most of our philosophers count the presence of manifested color as a necessary condition for the perceptibility of any substance whatsoever, regardless of the sense involved in grasping it. Thus, for example, water is not allowed to be colorless. Its color is referred to as "non-shining white" as opposed to the "shining white" attributed to fire. If water were colorless we could not see it or perceive it in any way. Vallabha takes exception to this view, however. Since he is concerned to argue that God and yogis can perceive atoms, he relaxes the requirement of manifested color for perceptibility, atoms being without such qualities.

Śrīdhara is of the opinion that qualities do not arise in a substance until a moment after the substance has come into existence (at the

earliest), and that likewise, since the cause of the destruction of a color is the destruction of the substance in which it inheres (except in cooking), the quality persists for a moment after the substance is destroyed. He seems to be motivated in this doctrine by the extreme importance the Naiyāyikas place upon keeping quite separate substances and their properties. Śrīdhara seems driven by this to allow qualities a fleeting existence without any loci, which flies against ordinary Nyāya-Vaiśeṣika doctrine. Yet his position is found adopted in later works, e.g., the *Tarkabhāṣā*.

Earth and water have taste, while earth alone smells. All 4 kinds of atoms have touch qualities, but the temperature or characteristic feel of the touch of each is distinctive. Fire has hot touch exclusively, and water cold touch. Earth has indifferent touch, neither hot nor cold. Air, finally, has a characteristic touch which identifies it uniquely; "air," indeed, seems to have been normally construed as wind. When earthy objects feel warm, this is due to there being fiery particles mixed in the substance. Tangibility is counted as a second necessary condition of a substance's perceptibility, in addition to possession of manifested color. Vyomaśiva remarks that the ray of the eye which is fiery must have unmanifested touch, otherwise we would burn up everything we look at!

2. *Number*: One should not look to Nyāya-Vaiśeṣika discussions of number for any mathematical insights; indeed, there is no reference to mathematical theory in this literature. Number is viewed by our philosophers as a kind of quality which substances (and only substances) have. Thus one cannot speak of the number of qualities a thing has, for example, for qualities have no number, number being itself a quality. This is a defect in the old theory which is resolved later on in Navya-nyāya.[4]

The peculiar characteristic of numbers is that they constitute the special causal condition for the phenomenon of counting. In this connection a difference of opinion of some interest arises over whether the number one is a number at all. The number one is in certain respects different from two and above: this fact is noted by Kaṇāda himself. Thus the number one is eternal in eternal substances but noneternal in noneternal substances, whereas two etc., are always noneternal. Again, numbers from two on are products, but one is not a product. Nor does the number one ever occur in a cause, says Kaṇāda; presumably the suggestion is that the causal conditions of any effect are always numerous. Praśastapāda adds further differences: two, etc., occur in several things at a time, while one

occurs in only one thing at a time. One lasts as long as its locus, while two etc., may come and go even though their locus remains. (That is, substances *x* and *y* are two, so that the number two inheres in each; if *x* is destroyed, two is also, but *y* remains.) But the most important difference by far is that, according to Praśastapāda and many others of our group, two and above have as a causal factor in their production a certain kind of judgment, while one is not produced at all.

Praśastapāda gives a terrifically complex account of how the numbers two, etc., are produced. This account features a certain sort of judgment called "enumerative cognition," as a result of which "each (of two substances) comes to be invested with the new character of being second to another without forfeiting its own intrinsic numerical unity."[5] This clearly puts two, etc., in a very different position from one, which is produced from a like quality—viz., unity—in the material cause(s) of its locus. Two turns out to be a quality dependent upon our thinking it present, while one is there whether we think so or not. To admit what such qualities as two, etc., represent in Praśastapāda's view would seem to be a very dangerous admission for a Naiyāyika to make if he wishes to maintain a sure-footed realism about the external world.

Later writers show the tensions created by this theory in several ways. Aviddhakarṇa seems to have held that unity (one) is a separate quality altogether. His reason appears to have been that, in order for causation to take place, the causal factors must become unified, and the quality they come to have as a result is unity. Although that is about all we know of what Aviddhakarṇa said, we may speculate that the unity of these causal factors was conceived by Aviddhakarṇa as neither a product of the unities of the various factors nor as dependent upon our making a judgment—this would be a reasonable interpretation, one must concede.

More radical still is the view of the Bhūṣaṇakāra, Bhāsarvajña. He dismisses the whole category of number. Unity and diversity are not qualities at all, but rather they are equivalent, on the one hand to identity of nature, and on the other to natural difference. This view appears to resemble the doctrine of the identity of indiscernibles : if "two" things have no difference in their essential nature (*svarūpa*), they are not two but one, whereas if they have differences in their essential nature they are two. This, of course, still does not account for the difference between two, three and above. As to this, if we can accept Vallabha's authority, Bhāsarvajña admitted that we make distinctions in virtue of our enumerative cognitions,

but his notion is that this fact precludes our counting numbers as qualities.

The task of answering Bhāsarvajña falls to Udayana. His idea is that without a quality of two we shall be unable to explain the size of a dyad and other larger compounds. The argument here reflects that of Praśastapāda reviewed above.[6] Aparārkadeva replies that Udayana, in accepting Praśastapāda's line of reasoning, accepts a principle that is untenable. That principle is this : the size of a part can only bring about size of the same type in the whole; e.g., a minute size in a part can only bring about a larger but still minute size in the whole. But, says Aparārka, this rule is obviously incorrect.

Aparārka also speaks to the status of the number one. One is not a quality, he says, but rather a universal. Indeed, Aparārka is willing also to construe all numbers as universals. Vallabha rejects the view that numbers are universals, however, on the grounds of ordinary speech : if two were a universal we would recognize something and say "this is a two and that is a two" just as we say "this is a pot and that is a pot." Vallabha indeed rejects most of Bhāsarvajña's thoughts on the topic of number. He says that one is not merely a thing's identity, for we do not normally see things as "one" but need a special judgment to recognize a thing's unity. Furthermore, he construes the thought of the *Bhūṣaṇa* as saying that the enumerative cognitions produce two, three, etc., where they were not before. Vallabha derides this view, and says that an enumerative cognition of two, for example, requires the quality two to be present already in the world. Vallabha appears to think that the cause of enumerative cognitions includes the number of the things about which the judgment is made. And this is indeed the way in which the Naiyāyika who, like Praśastapāda, thinks that numbers are dependent on our knowledge, refutes the idealist charge that the Nyāya position allows the mind the ability to create. The answer is rehearsed by Śrīdhara: it is that although numbers require cognitions to come into being, they also require, as an additional causal factor, the existence of the proper number of substances independently of our knowing. E.g., the judgment that there are 3 things in front of one is required in order that 3 qualify the 3 substances, but it is also required that there be 3 unities out there, each with its quality of one.

3. *Contact and Disjunction* : We have seen already the essentials of the discussion as to whether contact is locus-pervading or not. Another topic which receives attention concerns the conditions which bring contact about. Kaṇāda says these are 3 : (a) contact may be produced by the motion of one but not the other of the two sub-

stances; (b) or both may be in motion; (c) or contact may be produced by contact. The third kind of contact is explained by Praśastapāda to refer to a situation of the following kind. Consider a dyad of earth which is in contact with two water atoms which are themselves in contact and form a water dyad. Then the earth dyad's contact with the water dyad is produced by the earth dyad's contacts with the water atoms. It is important to note that, according to Praśastapāda, while one ubiquitous substance, e.g., *ākāśa*, may contact non-ubiquitous substances, two ubiquitous substances cannot be in contact, since neither are capable of motion. He is followed in this by most of our philosophers. Characteristically, however, Aparārkadeva disagrees, allowing contact between two ubiquitous substances such as *ākāśa* and time.

Disjunction is considered by the older Vaiśeṣikas to be a quality which inheres in a pair of substances when one has just parted contact with the other. Like contact, it has 3 kinds, says Praśastapāda : the first two produced by the motion of one or both of the disjuncts, the third produced by another disjunction. This third sort, however, has 2 varieties: (1) disjunction produced from disjunction of its causes, e.g., when some atoms move away from a place and thus produce a disjunction between themselves and the atoms which remain in that place; (2) disjunction produced by the disjunction of the cause from something else, e.g. when one removes one's hand from the trunk of a tree the disjunction of hand from tree produces disjunction of the body whose hand it is from the tree. Vācaspati Miśra remarks that some philosophers of his acquaintance do not accept this third kind of disjunction, and it would appear that the dissenter is once again Bhāsarvajña. At least Aparārkadeva reports that the Bhūṣaṇakāra denied that there is any such disjunction. Actually it would appear that the Bhūṣaṇakāra went a great deal further, and denied disjunction as a quality altogether. He appears to have construed disjunction as an absence, namely absence of contact where contact would be appropriate. But even so, the question of the cause of such an absence can be raised, so the issues are distinct. The Bhūṣaṇakāra seems to have argued thus : there is no disjunction produced from disjunction of the type (2) mentioned above; action in the hand cannot produce disjunction in the body; rather since there is action in the hand there is also action in the body, and it is this latter action which produces the "disjunction."

Vallabha defends the classical view against that of the radicals Bhāsarvajña and Aparārka. He argues that disjunction cannot be 'construed as an absence, since it has a structure different from an

absence. A disjunction is the parting of some *x* from some *y*, where both *x* and *y* are positive entities and remain so before and after the rising of the quality called disjunction. An absence, on the other hand, has a counterpositive: an absence is that *x* which occurs when its counterpositive *y* does not occur. The contrast, thinks Vallabha, is evident.

4. *Size and Shape* : Under this heading I propose to deal with the qualities of farness, nearness, size (or dimension), and separateness.

Farness and nearness are, like contact and disjunction, qualities of pairs of things. They qualify substances which are remote or proximate to each other in either space or time. Thus "farness" may mean separation of *x* from *y* by either many contacts with points of space or by many contacts with the sun and time. That these qualities are, like number, partially dependent for their origination upon our knowledge is a point made by Praśastapāda.

The Bhūsaṇakāra once again takes exception to this category. He rejects these two items as qualities, saying that all that is needed are the categories of contacts, or in the case of time, moments (i.e., contacts between time and the sun and a given item). Bhāsarvajña seems also to have seen that these qualities are relative to the context in which they are postulated. He points out that if one were to admit farness and nearness one ought in justice to admit another quality of intermediateness. Vallabha retorts that any attempt to reduce farness and nearness to something else, such as number of contacts, will, when unpacked, turn out to utilize the notions of "far" and "near' and thus not succeed in eliminating these qualities. This becomes understandable when we recall that time and space are inferred from our notions that one thing is prior to another, or that one thing is nearer to a second than is a third. Given the Naiyāyika's decision to find an entity to correspond to each legitimate notion, the logic of Praśastapāda and Vallabha on this matter is intelligible, but one also must sympathize with the Bhūṣaṇākāra's wish to keep the beard from getting too bushy !

The literature contains quite a good deal of discussion about the size of things. We have already had occasion to review some of it. Kaṇāda finds 5 basic sizes : large, minute (*aṇu*), long, short, and a fifth size called *pārimaṇḍalya*. Largeness and longness are perceptible and apply to substances which are perceptible. Minuteness and shortness are found both in dyads, which are noneternal, and in the internal organ, which is eternal; but they are below the threshold of perception. The fifth size, *pārimaṇḍalya*, sometimes translated "sphericity", belongs exclusively to atoms. It is inferred that, since other

substances have size, atoms must too, and so this size is postulated by Kaṇāda for them.

Candramati offers a somewhat different explanation of *pārimaṇḍalya*. According to him, it is the size of eternal substances, and has two varieties, the ultimately small size of atoms being one variety, the all-pervading size of *ākāśa*, space, time, and selves being the other. He also holds the internal organ to have *pārimaṇḍalya*, in contrast to Kaṇāda. Praśastapāda mediates between these differences : according to him *pārimaṇḍalya* is a variety of minute size; minuteness applies both to atoms (and internal organs) and to dyads, while large size applies both to *ākāśa*, etc., and to middle-sized perceptible products.

Once again the Bhūṣaṇakāra rejects this quality completely. He will reduce size to a matter of the number of contacts among the parts of a thing. Again, too, he uses as an argument against this quality the fact that statements like "this is large" or "this is small" are relative, and thus there are no finite number of "kinds" of size such as Kaṇāda and the others speak of.

Very little is said by our philosophers about shape. In discussion of theories of meaning there is broached the thought that the meaning of a word is the characteristic configuration by which we identify an entity—presumably this might be shape in the case of a perceptible substance. Vyomaśiva dismisses questions of shape by saying that particular shapes are the result of the arrangements of the parts of the thing and thus additional entities do not have to be recognized to correspond to the words "triangular," "circular," etc.

Another quality recognized by Kaṇāda and Praśastapāda but rejected by Bhāsarvajña is that of separateness. Praśastapāda distinguishes separateness into two kinds, one the separateness of one thing, the other the separateness of two or more things. The first sort of quality is viewed by Praśastapāda as a kind of differentiating feature which any single substance has as long as it remains what it is. A quality of this sort is produced each moment by the like quality which resides in the thing at the previous moment, and it can function as a noninherence cause in the production of wholes which have the original substance as a part. The other kind of separateness, separateness of two or more things, is, unlike the first, dependent upon our cognition in the way that Praśastapāda holds number, farness, and nearness to be as well. It has no causative functions. The Bhūṣaṇakāra's reaction to this is to assert that the first kind is irrelevant and the second otherwise explainable. The separateness of one kind is not properly named. We don't use the word "separate" to identify a single thing's identity through change, and indeed no quality is needed to accomp-

lish this self-identity. As for separateness of two or more substances, Bhāsarvajña's view is that this is merely a kind of absence, the variety we shall learn to recognize under the rubric "mutual absence", i.e., difference. Therefore, we can dispense with this quality as well. Vallabha as usual springs to the defense. Separateness, he says, is a positive entity, not an absence. His response, that is, is exactly parallel to his defense of disjunction.

5. *Psychological Qualities: Judgment, Pleasure, Frustration, Desire, Aversion, and Effort*: The next 6 qualities in the canonical list are all qualities of selves, and of selves alone. The first thing to notice is that all these qualities are adventitious : it is not the nature of a self to be conscious, etc. On this point the Naiyāyika is in violent opposition to the Vedānta systems, Jainism, Buddhism, Sāṃkhya — indeed, to just about every other school of Indian thought. The advantage of the Naiyāyika's view is obvious : since these qualities, some of which are directly responsible for bondage, are not natural to a self, a self can become freed from them without changing its essential characteristics. Other schools have to engage in tortured explanations of how bondage is possible for the conscious self; they tend to dissociate consciousness, and judgments, from the other 5 qualities in this group, which are held not to be essential characteristics of the self. Or alternatively, as in Buddhism, the whole notion of the self has to be abandoned.

On the other hand, as has been noted, the other schools deride the resulting Nyāya-Vaiśeṣika account of the self, since it leads to a conception of liberation which is unattractive. If the freed self is not conscious, who needs freedom? We saw that this led Bhāsarvajña to modify Nyāya doctrine.

The view of the *sūtrakāras* and their immediate commentators is that judgments are evanescent. Vātsyāyana even says that judgments are momentary. Gautama gives arguments in a rather mysterious passage which Vātsyāyana explains as follows. Consider our judgments of an arrow in flight. Since (as we shall see) motions are momentary, and these motions are the proper contents of the judgments whose series constitutes knowledge of the arrow's motion, it follows that these judgments each are momentary too.

Bhāsarvajña dissents from this view. He explicitly asserts in the *Nyāyasāra* that consciousness is eternal and attempts to meet the criticisms which are directed against him by the older wing of Nyāya. Many later Naiyāyikas find it possible to adopt an intermediate position between the new and old. They view consciousness as eternal in God, but noneternal in ordinary selves,

Judging from the frequency and extent of their references to it, our philosophers seem to have viewed the Sāṃkhya theory about consciousness as the main source of mistaken opposition views. The relevant features of the Sāṃkhya theory are these. According to Sāṃkhya, the fundamental material cause of all empirical events, known in Sāṃkhya as *prakṛti*, evolves in a peculiar fashion so that the psychical features are manifest first and these in turn evolve their "contents" and objects. Thus, *prakṛti* first evolves itself into a psychic entity called *buddhi*. When the witness-selves, or *puruṣas*, become "reflected" in this *buddhi*, the result is *upalabdhi* and *jñāna*, i.e., apprehension and cognition, not to speak of the other psychic qualities such as pleasure and frustration, etc. And from thence comes our consciousness of a world of objects, bodies, etc.

Gautama seems to have this theory very much in mind when he pronounces, at the outset of his discussion of consciousness, that the four words *buddhi*, *jñāna*, *upalabdhi*, and *pratyaya* are synonymous — which might otherwise seem a peculiar way to begin an exposition. Praśastapāda repeats the same equation, and the commentators are quick to muster extended arguments to show that these words do not name distinct faculties. Vyomaśiva notes that on the Sāṃkhya view there is just one *buddhi* for all the *puruṣas* — but since by hypothesis the *puruṣas* are not able to interact with *prakriti*, there is no property which the *buddhi* can have in relation to one *puruṣa* and not another; as a result everyone should have the same cognitions. Vācaspati takes issue with the reflection analogy; since consciousness is unmodifiable, it cannot be reflected as the sunlight is supposed to be reflected by the moon. Udayana expatiates further on these and other arguments. He is particularly concerned to show in the *Nyāyakusumāñjali*, as against Sāṃkhya, that the seat of consciousness is the same as the agent — if it were not so, he argues, a person's awareness of the results of *karma* will be divorced from his agency as the originator of that *karma*, and either bondage or liberation will be rendered impossible. The conclusion reached by Naiyāyikas is that the term *buddhi* is to be understood to refer to a quality of selves, the same selves as are the loci of other psychical qualities constituting enjoyment and agency.

How do we become aware of consciousness? According to Nyāya-Vaiśeṣika, in opposition to the other schools, we perceive cognitions through our internal organs. The Naiyāyika's reasons are connected mainly with his epistemological concerns; in particular, he wishes to deny vehemently that consciousness is self-revealing.

We may note in passing that while Praśastapāda views conscious-

ness as non-locus-pervading, Udayana sees it as locus-pervading since its locus is without parts. For reasons in explanation of these and other discrepant views about the locus-pervadingness of various qualities see above, pages 114-117.

Moving on now to the other psychic qualities, we may consider next the quality of pleasure and its opposite number, called *duḥkha* in Sanskrit. It is common to translate this term as "pain," conforming to English-language expectations, but it is clear from the context, and even specifically argued by Vācaspati Miśra, that it should not be considered as merely pain, but rather a broader notion of unhappiness. One scholar has suggested that "disharmony" would be as accurate a translation as he can think of,[7] and I have decided on "frustration" for this book. It may suggest itself that we might well, in conformity with this decision, translate the word for "pleasure" as instead meaning "satisfaction," coordinately with "frustration," and I do not doubt that this would be accurate and more logical. If I do not take this course here it is merely because there is an almost universal practice on the part of translators to translate the terms as "pleasure" and "pain," and by rejecting both these terms the reader may fail to remember the connection between our discussion here and the writings of others on Nyāya Vaiśeṣika.

Vātsyāyana is rather unlike the other Naiyāyikas in stressing our hedonistic concerns—he espouses a straightforward psychological hedonism, and in his introduction classifies all objects into a scheme which takes pleasure and frustration as basic. Others are more cautious about granting so much importance to our immediate motivations, preferring to speak as if we generally desire release.

This raises the question as to whether in release a self enjoys pleasure (he is surely satisfied !). The answer given by the older philosophers, and followed by most later ones, is "no"; Bhāsarvajña, however, says "yes." Indeed, Bhāsarvajña thinks that pleasure and frustration are eternal, as are knowledge and ignorance; our bondage consists in our failure, due to bad *karma*, to see that correct knowledge and pleasure are concomitant. The only early Naiyāyika whose remarks indicate a possible sympathy with this view of Bhāsarvajña is Candramati, who speaks of two kinds of pleasure, the one caused by bodily activity, the other by inactivity when there is perfect knowledge.

Desire and aversion are, as we have already seen, the immediate source of the distractions which lead to activity and bondage. They too, like the other psychic qualities are perceptible by the internal organ. Praśastapāda lists some major varieties of each. Kinds of desires are erotic, hunger, passionate, compassionate; kinds of aversion

are anger, resentment, jealousy. Thus, Praśastapāda views desire as sometimes mild, while aversion tends to be kind of "burning," he says. Śivāditya also speaks of aversion as a "blazing up," while desire is described as "purposeful." It would seem from this that our philosophers thought of aversion as in the main an emotional reaction against sources of frustration, while desire might well be calculating as well as abandoned. This might be kept in view when reviewing the question as to whether God has desires or not.

As a result of desire or aversion, selves exert effort (*yatna* or *prayatna*), sometimes also rendered as "volition." Effort is likewise perceptible to the internal organ. Praśastapāda has it that there is also a kind of effort which arises in the natural course of one's life, resulting in such activities as breathing and attending. Śivāditya may be merely reporting Praśastapāda's notion when he classifies effort into 3 kinds, one of which is indifferent as to getting or avoiding an object.

The natural question whether liberation is after all possible, since in desiring and exerting effort (in yoga) to attain it we are producing more bondage, is raised by Aparārkadeva, but only to say simply that these desires and efforts, unlike the others, do not bind.

6. *Dispositional Qualities : Weight, Fluidity, Viscidity, Inertia, Elasticity, Mental Traces* : We turn now to a number of qualities which are postulated to explain the dispositions of substances to behave in certain characteristic ways. Praśastapāda lists 4 of these: weight, fluidity, viscidity and a fourth called "dispositional tendency" (*saṃskāra*). This last he then subdivides into 3 : inertia, elasticity, and mental traces.

Earth and water have weight; air and *ākāśa* have none, according to Praśastapāda. It is imperceptible, an inferred entity. The only problem of any consequence about weight is the one, referred to above (p. 76), concerning the relationship between the weight of an object and the weights of its parts.

On the other hand, water, earth, and fire all have fluidity. However, water's fluidity is held to be natural (*sāṃsiddhika*), while that of the other 2 kinds of substance is accidental (*naimittika*). Since we see a river flowing, etc., it is directly perceptible both by the visual and tactual organs. It is locus-pervading. An example of an earthy substance which displays accidental fluidity is butter. Fluidity is given the power of producing motions by Praśastapāda.

Viscidity is postulated to explain the disposition of certain substances to stick together. According to Śivāditya viscidity also has 2 varieties: natural, which is found in water, and limited (*aupādhika*), as in (presumably) butter, etc. It is perceptible by vision and touch,

Inertia (*vega*), sometimes rendered as "impetus," "velocity," or even "speed," is the quality of a moving substance which is responsible for its continuing in the same direction. There is a discrepancy between Vaiśeṣika and Nyāya on how many such inertia-qualities occur in a body moving in a line of direct flight. Seal reports that the Vaiśeṣikas hold that there is one inertia throughout, but that Uddyotakara and the other Naiyāyikas hold that inertia, like the other qualities, is momentary and produces another one at the next moment. The Nyāya view has the advantage that acceleration and deceleration can be easily explained. The Vaiśeṣika posits that inertia loses its force as it expends energy and thus the body eventually slows down and stops. Change of direction in a moving body also calls forth some additional hypotheses. Some philosophers of our schools think that when the body changes direction the original inertia is destroyed and a new one produced, either by impact or compression. Others hold that the original inertia is not destroyed but remains to help produce a new motion, a resulting change in its own direction.[8]

Inertia is a locus-pervading, specific quality of the material substances. Praśastapāda holds it to be perceptible. He explains flight by hypothesizing that inertia can oppose weight.

The Bhūṣaṇakāra rejected inertia as a quality. Aparārkadeva also does so, arguing that inertia can be analyzed into spatiotemporal notions and is not needed as an additional category. Furthermore, he argues, motions are not produced by inertia. As we shall see shortly, these philosophers take motions themselves to be qualities, not a different category altogether.

Śrīdhara is aware of opponents (perhaps Bhāsarvajña) who wish to reduce inertia to motion. He argues that from the phenomenon of motion alone we could never get the idea of inertia. We do not get it from slow motion, he says, and from fast motion we get the idea of a solid object, as in the Buddhist's favorite example of the whirling fire-wheel or *ālātacakra*.

Elasticity (*sthitisthāpaka*) is a quality in earth which explains the tendency of certain things, e.g., the branch of a tree, to return to its original position after it has been pushed aside.

The third kind of dispositional tendency is the mental trace. These are dispositions in the selves, and are produced by vivid knowledge, habit, or a special effort of attention. Merit and demerit are said by Vātsyāyana to produce traces and Praśastapāda mentions that dreams and other kinds of erroneous cognition can also produce traces. Praśastapāda also explains how traces can be counteracted: by knowledge, by intoxication, and by great pain. According to Śivāditya

traces are the causal factors most efficacious in the production of memory. Udayana also defends the independence of traces by arguing that memory would be inexplicable without positing a trace corresponding to each distinct object perceived in the past; this is necessary, he suggests, since on the Nyāya-Vaiśeṣika theory knowledge is formless and cannot take on the form of its object.

Traces are appealed to in a variety of contexts to smooth out the theories our philosophers espouse. We shall notice these instances as we proceed.

7. *Merit and Demerit, and Adṛṣṭa* : Ethical naturalists that they are, the Nyāya-Vaiśeṣika philosophers hold that the moral qualities of selves are causal factors in the production of certain nonmoral, as well as moral, results. Vātsyāyana says that when Gautama speaks of "activity" (*pravṛtti*), one of the members in his fivefold chain, he has merit and demerit in mind. We have seen above how merit and demerit play their part in the systems of Kaṇāda and Gautama in producing bondage and transmigration. There remain a few technicalities to consider.

Properly speaking, it seems one ought to say that merit and demerit earned by the behavior of self *A*'s body inheres in *A* and produces therein traces which in turn produce the eventual birth of *A*'s next body. But our writers are generally careless about the distinctions here and speak of merit and demerit as the immediate cause of transmigration.

Yogis have accumulated great merit, which enables them to do unusual things. In particular one might mention that it enables them to be directly intuitive about things (such as merit and demerit) which normal people can only infer, and that it also enables a yogi to throw his internal organ to great distances and thus into other bodies.

The term *adṛṣṭa* seems to have been early associated with Vaiśeṣika and rejected by Nyāya. Kaṇāda makes extensive use of the notion to explain a variety of things: magnetic attraction, the initial motion of atoms, falling downwards, as well as transmigration. Gautama explicitly rejects the theory that *adṛṣṭa* is responsible for the connection between a self and its body, i.e., for transmigration, because he reads *adṛṣṭa* as involving the various aspects of Kaṇāda's use, notably that aspect in which it is a quality of atoms. Praśastapāda preserves Kaṇāda's sense of *adṛṣṭa* as the cause of the initial motion of atoms, but seems to equate this cause with the agency of the merit and demerit of the selves. Udayana flatly rejects *adṛṣṭa* as a quality of atoms,

and by his time it is accepted on all sides that *adṛṣṭa* is the force of the merit and demerit of selves.[9]

8. *Motions* : In the standard Vaiśeṣika list of categories, motions constitute the third of the 7 great categories, and most Naiyāyikas follow this classification. In familiar fashion, Bhāsarvajña and those who follow him deviate. In this case the novelty in their view is that they classify motion as an additional member of the second category, as a quality. In the *Nyāyasāra*, when Bhāsarvajña is listing the categories, motions are notably missing. I have been unable to find any explicit refutation of the Bhūṣaṇakāra's view that motion is a quality. Indeed, motion is in all germane respects like a quality. A motion inheres in a substance, is momentary, and acts as the noninherence cause of the appearance of certain qualities such as contact and disjunction. None of these properties are inconsistent with a motion's being a quality. The only doubt that might occur would be over the extent of time during which a motion may last. Kaṇāda says that the flight of an arrow is a series of motions, and Vātsyāyana says that motions are momentary. However, one may speculate that some doubts were felt on that score. And indeed Vyomaśiva asserts that the Vaiśeṣika view is that a motion lasts 5 moments. If so, this would constitute a sufficient reason to distinguish motions from other qualities, which are held to be strictly momentary. But there is a disturbing lack of attention to these problems, which have an obvious kinship to Zeno's paradoxes.

A topic that does receive extended attention, however, is the explanation of how a motion is produced and what a motion can produce, that is, the explanation of movement. Kaṇāda views a motion as a cause of contact and disjunction but not of other motions, and says that motions are caused by various qualities: contact, volition, *adṛṣṭa*. Praśastapāda adds to the list of motion producing qualities weight, fluidity, and inertia. Some writers dispute the ability of a motion to produce contact or disjunction. Uddyotakara says that a motion cannot produce these qualities by itself, and Bhāsarvajña denies that motions have any such causal role, asserting that when we say that a thing's motion brought it into contact with something it is the cause of the thing's motion which is the cause of the contact. He also denies that inertia can produce motion.

One reason why motions cannot be granted the capacity to produce other motions is given by Śrīdhara. If motion *m* is by its nature able to produce a second motion *n* without assistance, then there could be no cessation of motion since there would be no reason for *m* not to produce *n* even if *m* were supposed to be the last motion. Thus, if

after *m* there does turn out to be another motion *n* , the cause of *n* should be sought in the special causative factors pertinent to its occurrence, and not in *m* alone.[10]

Can motions be seen, or must they be inferred? Kaṇāda says we can see motions in substances which are visible, i.e., in colored substances.

Kaṇāda subdivides motions, in rather quaint fashion, into 5 varieties. These are : (1) going up; (2) going down ; (3) contraction; (4) expansion; (5) going. The last includes all sorts of indiscriminate movement, and is supposed to be produced by composite forces working in different directions, for example, vortical motion produced by the inertias of two bodies moving in opposite directions.[11] None of the later writers feel inclined to improve upon this classification.

7

UNIVERSALS, INDIVIDUATORS, ABSENCES

We now turn to those problems of ontology which have a close kinship with various issues of great interest to philosophers in the West as well as in India, issues which divide realists from nominalists and conceptualists, which probe such ultimate questions as "how does one tell one thing from two?" and "what is the status of negation?" With respect to all of these issues there is one generalization which can be made in characterizing the position of Nyāya-Vaiśeṣika, and that is that in resolving issues such as these a Naiyāyika is prone to proceed through verification rather than through recourse to epistemological subtleties. Thus he peoples the world with universals rather than attributing classifications merely to our selective attention; he postulates individuating entities rather than allowing that numerical identity is dependent upon our concerns to reidentify certain items; and he eventually adds a category of negative entities, absences, rather than construing reference to the negate of a thing as dependent upon our judgemental activity of denial. In all these moves he is motivated by a realistic bias — realistic now in the epistemological sense of not wishing to allow that entities can be produced merely by an activity of thought. This underlying motivation must be constantly kept in mind if one is to understand the rationale of these aspects of Nyāya-Vaiśeṣika philosophy.

1. *Universal and Particular*: The fully developed Nyāya-Vaiśeṣika view of universals is that they are real, independent, timeless, ubiquitous entities which inhere in individual substances, qualities, and motions and are repeatable, i.e., may inhere in several distinct individuals at once and or at different times and places. The general term used in Vaiśeṣika for such an entity is *sāmānya*.

However, the initial doctrine of the school as found in the *Vaiśeṣika-sūtras* and the early commentators is substantially different from the

notion just characterized. Kaṇāda's 6 categories contain 2 — *sāmānya* and *viśeṣa* — whose names are retained by the school, but which he probably construed rather differently from later thinkers. It has been suggested (and Hattori in his summary below of the *Vaiśeṣikasūtras* follows this suggestion) that translating these two terms "genus" and "species" would render Kaṇāda's intent most accurately. This translation illuminates the otherwise puzzling statement which Kaṇāda makes : that a *sāmānya* (other than Being, to which we shall return) may also be viewed as a *viśeṣa*. This makes perfect sense as applied to an entity such as, e.g., *potness*, which is a genus relative to particular pots but a species relative to the more inclusive genus clay-objectness. Indeed it is evident that Candramati not only construed Vaiśeṣika theory in just this way, but also carried out its logical implication to the extent of adding a category. His reasoning was this : *potness*, etc., are both *sāmānya* and *viśesa*, both genus and species at once. They are thus one kind of entity. A different, and second, kind of entity is pure Being, which is the highest genus and does not differentiate anything, being shared by all entities. And a third kind of entity is the ultimate individuator (*antyaviśeṣa*), an entity which differentiates without assimilating, which is not common to and shared by several entities but is unique and self-individuating.

We may divine from this that one source of the postulation of universals, especially strong in the Vaiśeṣika thinkers, is the necessity of explaining the existence of natural kinds, the fact that certain individuals are similar and not merely because we think them so. A second source of the notion of universals, particularly prominent in the *Nyāyasūtras* and its commentarial literature, comes from the necessity of deciding what it is that a common noun names.

In Gautama's discussion of the meaning of words three types of designata are considered. The question raised is : does the word "cow" (e.g.) mean Bossie, the individual cow, or the characteristic shape and other qualities associated with cows, or the property of *cowness* which is common to the several individuals to which the word "cow" is customarily applied ? Gautama's conclusion is that all 3 are involved in the meaning of the word, and we shall consider the Nyāya theory of meaning more closely below. At the moment our concern is with Gautama s notion of a property, such as *cowness*.

The Sanskrit word that Gautama uses is *jāti*, etymologically associated with the notion of natural kinds (the same word is used to identify members of a caste, a natural kind in the realm of human beings). Randle points out that Gautama knew of the Vaiśeṣika

view, speaking of *sāmānya* in the *sūtra* in question, and says that *jāti* "seems to be what we should call a natural class."[1] Vātsyāyana, it is interesting to note, brings the two terms into relation: according to him a *sāmānya* is a "pure" universal, like Being, which assimilates without differentiating, while a *jāti* is an ordinary property like *potness* or *cowness*, one which both assimilates and differentiates. Thus Vātsyāyana uses the term *jāti* for the purpose that Candramati sought to serve by giving the term *sāmānyaviśeṣa* a technical meaning. Praśastapāda adopts Vātsyāyana's, rather than Candramati's terminology, and after him both Naiyāyikas and Vaiśeṣikas speak alike on this point. Nevertheless, the category of universals is usually referred to by the word *sāmānya* although *jātis* as well as "pure" universals belong in the category.

Although Randle claims that a *jāti* seems to be a class, B. K. Matilal has pointed out that neither in the medieval nor in the modern logician's sense of "class" can this be made out.[2] Rather the *jāti* is the property which demarcates the members of a class. One might be tempted to say that Naiyāyikas are intensionalists, but this is misleading.[3] Rather the Naiyāyika should be conceived to be a realist in the scholastic sense; he believes that universals exist *ante rem*, independently of both thought and instantiation.

A further distinction within the category of *sāmānya* is developed gradually during our period, and becomes of immense importance in Navya-nyāya. This is the distinction between *jāti* and *upādhi*. Ingalls has suggested the translation "imposed property" for *upādhi*.[4] By Śivāditya's time it was accepted that the category of universals included both *jātis* and imposed properties.

As Śivāditya notes, the difference between an imposed property and a proper universal or *jāti* is that the former "has a sublator," i.e., fails to satisfy one or more of the tests of *jāti*-hood. These tests were formulated succinctly by Udayana in the *Kiraṇāvalī*. There are 6 tests. First, a proper universal must have more than one individual as instances; thus *Devadatta-ness*, a property unique to Devadatta, is not a proper universal but an imposed property. Second, there can be only one proper universal for each distinct set of individuals. E.g., *kalaśatva* and *ghaṭatva*, both properties instantiated in each and every pot, and only in pots, are not two different properties; rather, the two Sanskrit terms must be construed as denoting one and the same property. If someone insists that in addition to potness there is a second property, *kalaśatva*, inhering in the same entities as potness, he is speaking of an imposed property. Thirdly, if two properties have *x* as an instance, and one of the two does not fall completely

within the other, then neither is a proper universal—both must be imposed properties. Thus elementhood and materiality are imposed properties, for earth is both an element and material, but ether is an element and not material, while the internal organ is material but not an element. This fault is called crossconnection. The fourth test excludes from the scope of proper universals any property whose incorporation would result in the production of an infinite regress. Thus *universalhood*, the property common to *potness*, *cowness*, etc., is an imposed property, not a proper universal. Fifthly, a property which is supposed to have as loci entities which by hypothesis are unique is an imposed property, not a proper universal. Such a property is *individuatorness*, since the ultimate individuators are by nature things which differentiate without assimilating. Sixthly and finally, if a property is such that it cannot, consistently with Nyāya-Vaiśeṣika theory, be construed as inhering in its loci then it is an imposed property, not a proper universal. Thus *inherenceness* is an imposed property, for if it were to be supposed that it inheres in several inherences[5] the supposed relation could not be inherence but rather a self-linking connector, since the relation (inherence) is identical with one of its relata (inherences).

Though the *Kiraṇāvali* is the most noted exposition of these requirements, they are by no means unknown in the earlier literature. The fault of crossconnection is appealed to by Praśastapāda in meeting an objection to the fifth type of motion mentioned above, which the objector feels covers all motions whatsoever. Praśastapāda's answer is that to classify a whirling motion as both going up and going down, for example, involves the fault of crossconnection. Śrīdhara notes that *universalhood* is not proper universal, and likewise for *inherenceness*, and explicitly identifies the former as an imposed property. This is the earliest use of *upādhi* in the sense of imposed property that I have been able to locate.

Of the 6 faults only one is seriously challenged by our philosophers. The doubtful one is crossconnection, and the challenge comes, predictably, from the Bhūṣaṇakāra's school. Aparārkadeva, for example, submits that crossconnection is not a fault, alluding specifically to Udayana's listing of it. Aparārka raises the question in the course of rejecting variegated color as a separate kind of color. Udayana and others find themselves forced to postulate variegated color since for one thing to be both red and green would result in crossconnection of the universals *redness* and *greenness*. Aparārka rejects crossconnection as a fault. The Navya-naiyāyika Raghunātha Śiromaṇi agrees,

noting that there would be mighty few proper universals if this requirement were adhered to.

It is worth pausing to note that the second requirement is tantamount to what Western logicians term the principle of extensionality; this is why it is, as remarked above, misleading to call the Naiyāyikas intensionalists. It is true that they recognize universals as real, independent entities; nevertheless, they do adhere to certain parsimonious practices.

2. *How Do We Come to Know Universals?* : Are universals directly perceived, or only inferred? The authors of the *sūtras* did not address this question, but as soon as the issue was faced the answer was evident and consistently adhered to: universals are perceptible. After all, universals are the features by which we recognize, reidentify, and thus are able to classify individuals, so that surely we must be able to perceive them. That led in turn to the question: *how* do we perceive them—with what organs? Candramati held that we perceive them with our internal organ. He carefully distinguishes perception of universals, which only requires contact between self and internal organ, from perception of substances, qualities etc., which requires the activity of external sense organs. Praśastapāda, however, explicitly states that a universal residing in a perceptible locus is perceived by whichever sense organ it is that apprehends the locus. Śaṃkarasvāmin is said to have held that universals actually have a form, are colored, etc.,—a view which plays hob with some of the assumptions we have had occasion to note heretofore. Later commentators appear to have felt difficulties about the perceptibility of universals, however. Vyomaśiva asserts that universals are perceived only by that type of perception termed "nonpropositional" (*nirvikalpa*). We shall have more to say about this when we discuss perception.

Despite the fact that we are supposed to be able to perceive universals directly, it was still felt necessary to defend the existence of universals against objections, and thus inference also came into play as a way of cognizing universals.

3. *Do Universals Exist? Defense against Nominalism*: Our philosophers postulated universals in order to explain several kinds of phenomena: the use of common nouns to speak indifferently of one or more of a group of things, the notion that one thing is similar to another in a certain respect, the facts of recognition, causation, and inference. However the Buddhists, the Indian defenders of nominalism, profess to be able to explain each of these phenomena in accordance with nominalistic assumptions. In addition, they find fault with certain

implications of the realist's view. Let us take up those among these points that we have not already had occasion to mention.

First, as to what common nouns designate, the Buddhist theory is that the function of such a noun in a sentence is to exclude from consideration things which do not answer the description. Thus the term "cow" in the sentence "bring the cow" has the function of excluding from consideration all the other things the speaker does not want brought. Thus, a noun designates the negation of its complement—that is to say, "bring a cow" has the force of "bring something which is not a non-cow." The negate of the complement of something is technically termed *apoha*, and the Buddhist theory is thus referred to as *apohavāda*. The point of the view for the current topic is that the function of common nouns can be explained without assuming that reference is being made to any external element other than the individual being brought—the particular cow. Where the Naiyāyika argues that the force of "a cow" (as opposed to "the cow") can only be explained by postulating a property common to cows, the Buddhist claims to be able to explain the difference by reference to what is being excluded; thus the entities alluded to in the expression "bring a cow" are all things which are not present in the situation at all—namely, all the other things which are not cows capable of being brought.

In answer to this theory of the Buddhists many arguments are adduced by Uddyotakara and later writers. While reserving a fuller review of these arguments for a later section, we may note here Uddyotakara's point that if the Buddhist hopes to avoid commitment to universals by this theory he is doomed to be disappointed, for in order to understand the directive "bring a cow"—even granting that the only external reference is to an individual—still we cannot tell which individual the reference is to except by apprehending the property cows have in common, a property which is the "complement" of the property all non-cows have in common.

As for similarity, it is notable that Buddhists tend to take similarity as a primitive relation generated by our conceptualizing activity, which projects these classifications into the external world. Thus they espouse a nominalism which leads straightaway to epistemological idealism. We shall consider the epistemological issues shortly.

Jayanta argues that however one strives to explain the facts of recognition of an object seen before, he will have to posit that that thing is of a kind, and the notions of kind presuppose those of common properties.

4. *Where Are Universals Located?* : It is well-known to students of

ancient Greek philosophy that an importance different between the theories of Plato and Aristotle concerning universals was over whether universals only occurred in their instances or had some kind of independent existence "elsewhere." This sort of question was also raised in classical Nyāya-Vaiśeṣika. Praśastapāda is perhaps the first to speak to it directly. He states that while a universal inheres in all its loci simultaneously, the universal does not exist in the space between the loci. Uddyotakara seems to agree. However, there is a tradition that universals, like ether, selves, inherence, etc., are all-pervasive entities. The view espoused by Praśastapāda appears to violate this tradition. Vyomaśiva notices the discrepancy. He points out that to defend the tradition one would have to hold that though a universal—say *cowness*—is present everywhere and so present in horses, its manifestation in cows and not in horses is due to some additional causal factor. This is absurd, thinks Vyomaśiva. Rather he suggests how to read the traditional account of universals as all-pervasive: the idea is that universals are unlimited in the scope of their occurrence, though of course they do not occur everywhere but only in their proper instances.

Vācaspati takes a different tack. He thinks that universals *are* everywhere at once but sees no fault in this. After all, he remarks, *ākāśa* and selves are all-pervasive and so concurrent, but it is not necessary to conclude that one qualifies the other. Only if inherence links a pair of things one of which is a universal do we have qualification. The idea is that only cows are capable of being related to *cowness* by inherence. The puzzle about Vācaspati's interpretation is that we cannot very well suppose under the circumstances that cows get their membership in the class *cow* by virtue of their sharing the property *cowness*, since Vācaspati can only distinguish *cowness* from other coextensive universals by appealing to the fact of the inherence in cows ! For Uddyotakara, on the other hand, a thing is neither cow nor non-cow except insofar as *cowness* inheres or fails to inhere in it.

Udayana characteristically proceeds to the ultimate question: does a universal exist even when it has no instances ? The connection with the foregoing is clear: if a universal occurs only in its instances, then it is *nonoccurrent* when there are no instances. Udayana says flatly that universals do occur even in the absence of instances. Aparārkadeva specifies that this happens during the period between one dissolution of the universe (*pralaya*) and its subsequent creation, though he seems to feel a bit unsure about Udayana's theory—he remarks that perhaps when universals lack any instances in our universe they have instances in another world-egg (*brahmāṇḍa*) ! Is this a

vague presentiment of the notion of "possible worlds," a stock concept in modern Western philosophy?

5 *Are Universals Dependent on Our Thought?*: None of the foregoing quite meets this question. We have had occasion before this to mention the disturbing phrase which occurs sometimes in Kaṇāda and Praśastapāda, "marked by knowledge." Praśastapāda applied this to universals, which might suggest he holds some version of what is called "conceptualism" in Western medieval thought. Śrīdhara however, denies this interpretation. What is meant is just that in the case of things other than universals we can know them by their effects, etc., but since universals have no effects or other distinguishing marks we must be supposed to know them directly by reflection. It does not follow, though, that Śrīdhara adopts all the usual features of scholastic realism. For example, he specifically denies that universals only characterize "natural" kinds: as long as people conventionally treat two otherwise different items under the same rubric, that in itself is sufficient to warrant our recognizing a universal to be present. Nevertheless, one gathers that for Śrīdhara and the rest the universals are "already there" to be recognized, not put there by us when we adopt a classificatory rubric. Thus Naiyāyikas are believers in universals *ante rem* although which universals are recognized depends on convention.

6. *The Supreme Universal Being or Existence*: Nyāya-Vaiśeṣika has come in for a good deal of criticism over its account of existence, so it will be well to devote a special section to a discussion of it. As we saw, Kaṇāda and the other early Vaiśeṣika writers viewed existence as the highest genus, indeed that genus which is not a species lying under any superior genus. The term Kaṇāda uses for this supreme universal is *bhāva*, derived from the root *bhū* meaning "to come to be," and he specifically noted that *bhāva* includes first 3 categories of substance, quality, and motion. This has led many critics to ask what in the world Kaṇāda thought the status of the remaining 3 of his categories was: do they exist?

By the time of Candramati and Praśastapāda different terminology is in use, and partly because of the change in terminology confusion subsequently has arisen. The term for the universal which inheres in the first 3 categories is now *sattā*, derived from a different Sanskrit root, *as*, cognate to Latin *esse*, "to be." It is the highest genus. It is probable that the reason why in these writers this highest genus was not attributed to the categories of universal, individuator, and inherence is that—as we have seen—the members of these categories had no higher genus at all in hering in them and thus *a fortiori* were

provided no highest genus, whereas substances, qualities, and motions came in hierarchical varieties.

In any case, Candramati (who we will remember believed there were 10 categories, not just 6) found some other properties which characterized all 10 of his kinds of things: everything in the categories is knowable (*jñeyatva*) and nameable (*abhidheyatva*). Among his categories is the one comprising absences (*abhāva*), which are thus knowable and nameable. Praśastapāda, on the other hand, who did not recognize absences in his list of categories, not only adopted the universals of knowability and nameability as characterizing all 6 categories but also added a third such universal, "isness" (*astitva*). This word is also derived from the root *as*, and grammatically ought to come to the same thing as *sattā*. Praśastapāda in characterizing all 6 categories as having *astitva* but only the first 3 as having *sattā*, clearly promulgates a technical terminology with no particular rationale in the language.

Furthermore, by explicitly identifying his *sattā* with Kaṇāda's *bhāva* he compounds the confusion, as it turns out, although he cannot be altogether blamed for it. Since the term for "absence"—negative entities—is *abhāva*, the result is that neither *bhāva* nor *sattā* nor *astitva* quite answers to "existence." For there would appear to be two important and distinct senses of "existent" to be distinguished, and Praśastapāda's stipulations render no 2 of the 3 terms sufficient to make the distinction. In the first of these senses, one might want to have a term characterizing all positive entities in distinction from negative ones—absences. Etymologically *bhāva* ought to do that, but Praśastapāda follows Kaṇāda in using this term to refer to only the first 3 categories. Instead Praśastapāda adopts the term *astitva* for all 6 categories. But then he has no way of handling the second sense, which is the sense of "existent" according to which we want to characterize every actual entity regardless of its positive or negative mode of existing. Having used *astitva* he might appeal to *sattā*, say, for this wider purpose—but he has already deprived himself of that term by equating *it* to *bhāva*!

The solution to this predicament, as we find it in Śrīdhara and Udayana, is to widen *sattā* to cover the 6 positive categories and *astitva* to cover all 7 including absences. In order to accomplish this, however, without completely defying the stipulations which come with the authority of Praśastapāda, they indulge in the explanation that whereas all 6 positive categories have *sattā* connected to them, only the first 3 have it actually inhering in the individuals comprising the categories. In the other 3 categories the relation between *sattā*

and the members is not inherence but a more indirect relation. For example, although *sattā*, being itself a universal, cannot reside in the universal jarness,[6] both the two universals are related by a relation called "inherence in the same object" (*ekārthasamavāya*), since both *sattā* and *jarness* inhere in jars.

The other widening, that of the scope of *astitva* to apply to all 7 kinds of things recognized by Vaiśeṣikas, took longer and perhaps has never been universally adopted. Śrīdhara proposes a reading of *astitva* which departs from what has so far been suggested. He thinks that *astitva* is not a universal but rather that *astitva* characterizes the distinctive character which each real thing has, what is elsewhere called its *svarūpa* or "own-nature." Bhaduri writes: "The real, therefore, is conceived in the Nyāya-Vaiśeṣika system, as a definitely determined fact. It must possess a self-identity, without which it would neither be what it is, nor be different from what it is not."[7] That the term *astitva*, as well as "knowable" and "nameable," are used by Udayana and many Navya-naiyāyikas to denominate criteria of reality is clear enough, and it is also clear that they use it in such a way as to cover absences as well as positive existents. Absences, like positive things, have a "distinctive self-identity" if they are real; it is only fictions which lack a *svarūpa*.

Nonetheless not all subsequent Naiyāyikas followed Śrīdhara and Udayana in applying *astitva* to all 7 categories. Vallabha and Keśava Miśra, to take two, continue to restrict it to the 6 positive categories only.

7. *Individuation* : As was noted earlier, the ideas of universal and particular originated in Kaṇāda as relative notions akin to our notions of genus and species. But just as there is a *summum genus*, so there is an *infima species*, which in Sanskrit is termed *antya viśeṣa*, "final individuator." Kaṇāda mentions such individuators, and Candramati is perhaps the first to include them as a distinct category. The term *viśeṣa* yields the adjectival form *vaiśeṣika* after which Kaṇāda's system became known, since the inclusion of individuators constituted a unique feature of the school.

According to Candramati all 9 substances have (final) individuators. The atoms of earth, water, fire and air each has its distinct individuator, as does each self and internal organ, *ākāśa*, time, and space. He explicitly attributes to the individuator the capacity to produce in us the identification of a thing as being of a kind.

Praśastapāda raises the question as to how we come to recognize individuators; he avers that yogis of the "ecstatic" type see them. Ātreya apparently added that individuators could only be seen close

up, unlike universals, which could be recognized from a distance. It is clear that the individuators of atoms are considered to be too small for the normal observer to perceive. Praśastapāda viewed all the other substances, including selves, as imperceptible for normal percipients, though the yogis could see the difference between selves. As later writers admitted the perceptibility of selves they also began admitting the perceptibility of the individuators of those selves. Vyomaśiva, for example, admits the perceptibility of individuators but only through indeterminate perception. Śrīdhara uses Ātreya's point about the difficulty of seeing individuators from afar as a way of explaining the indistinct perception of distant objects.

Praśastapāda also raises the fundamantal objection: why must individuators be postulated, since substances can be supposed to individuate themselves? His answer is twofold: first, that since atoms and selves are alike as far as their generic character is concerned, there must be postulated something else to differentiate them; second that just as things become unclean by coming into contact with flesh which is ipso facto unclean, so a substance becomes individuated by coming into contact with an individuator which is ipso facto individuated. Furthermore, adds Śrīdhara, there would be an infinite regress if individuators were not self-individuating.

Though these arguments may appear unconvincing they seem to have been generally accepted throughout most of our period. Varadarāja omits individuators from his list of entities which we need to study, but it is not clear that he has any basic criticism of the tradition. His version of that tradition is a bit different: according to him the individuator is the "own-nature" (*svarūpa*) of simple substances, but the individuators have no *svarūpas*.

8. *Absences*: We come, then, to the seventh and final category. As has been mentioned, its categorial status was only grudgingly accepted by some of the Naiyāyikas. But this is due to differing conceptions about what constitute the conditions for categorial status. Starting with Kaṇāda, Naiyāyikas discuss absences as an ontological rather than epistemological matter. Kaṇāda speaks of non-being (*asat*), and classifies it into 4 kinds corresponding to the major divisions accepted and developed at length later. Gautama attributes *asat* to a thing which has not yet been produced. Candramati is the first to recognize absences as a distinct kind of being with categorial status, and subsequent philosophers of the school either explicitly list it as seventh category or rather apologetically explain why it is not listed by Kaṇāda, implying that its ontological importance must not be overlooked.

For the Naiyāyika an absence is an entity distinct from anything else. If one is counting up the things in the universe one will have to count an indefinite number of absences. Absences have no *svarūpa* of their own (and thus do not have "existence" in the technical sense set forth on pp. 140-142) but each and every absence is the absence of some positive entity which does have a *svarūpa*. This positive thing is the absence's "counterpositive" (*pratiyogi*). Furthermore, every absence has a locus, a positive entity which it "qualifies." Thus for example when the judgement "there is no jar on the mat" is true, there is located on the mat an absence whose counterpositive is *jar*. This absence is said to be the "qualifier" of the mat, its locus.

Early Vaiśeṣikas and Naiyāyikas differed over the perceptibility of absences. Vātsyāyana holds that absences are known through the same means as their counterpositives would be known if they were present; thus the absence of jar on the mat is known by the same means, namely perception, that the jar would be known by if it were on the mat. Though Candramati denied that absences could be perceived, later Vaiśeṣika commentators accepted the perceptibility of absences and argued alongside their Nyāya colleagues against opponents who wished to convince them that when a negative judgment is grounded in perception what is perceived is the locus (e.g., the mat in our example above) and nothing more. For example, Vyomaśiva points out that since when the mat is presented alone we do not always judge the absence of jar there, an additional entity must be present to perception in those cases where we do form such a judgment. This is intended to refute the Prābhākaras and Vedāntins who hold that all entities are positive and that the cause of negative judgments is our failure to observe a positive entity, jar, on the mat. Vyomaśiva's point, and that of a great many Naiyāyikas who argue to this purpose, is that there is presented in experience not just a mat, but a mat qualified by the absence of jar, and that just as when we apprehend by perception that the grass is green we perceive not only grass but green color, so when we perceive that the mat is qualified by absence of jar we perceive both the locus and the qualifier.

Udayana, in *Nyāyakusumāñjali*, adds a number of important notes to the question of the perceptibility of absences. He remarks, interestingly, that some Naiyāyikas deny that absences are perceptible, although it is not known to whom he is referring. But, he says, absences are perceptible when their counterpositives are, and it is not even necessary that their loci be perceptible. For example, he cites the judgment "the sound I heard before does not exist now," which he says is a perceptual judgment even though the locus, *now*,

is not perceptible. He reviews all the arguments of his forebears for the perceptibility of absences, adding what are presumably some new ones as well. For instance, he argues against the Vedānta view that absences are known through nonapprehension (*anupalabdhi*). His argument is that while it is possible to make mistaken judgments about absences, nonapprehension cannot be mistaken, for when one knows something through nonapprehension his failure to apprehend is sufficient to guarantee the truth of his claim. As Udayana puts it, in nonapprehension there is nothing involved which might be defective and produce error, whereas in perception the senses are involved, and they may well be defective and produce erroneous perceptions.

In Udayana's *Ātmatattvaviveka* some additional points of interest are discussed. One relates to the possible referent of the phrase "absence of hare's horn." Uddyotakara had in fact mentioned the phrase and had asserted that it was a perfectly meaningful phrase and referred to an absence. Udayana, however, insists that since a hare's horn cannot be known through any of the means of knowledge the phrase "absence of hare's horn," like "hare's horn" itself, denotes something unreal rather than nonexistent. This discrepancy is, I think, easily resoluble. The two philosophers had different propositions in mind. Uddyotakara is considering the proposition "there is absence of horn on (a) hare's head"; here both horns and hare's heads are perceptible and thus the absence of the one on the other is a straightforward case of perception. On the other hand, Udayana considers a different proposition "there is absence of hare's horn here," and apparently assumes that we are never going to see a hare with a horn on his head. Since there is no counterpositive denoted by the phrase "hare's horn," the absence identified through that apparent counterpositive is unreal.

A related point, of interest for the study of certain issues in Navyanyāya, concerns the question whether an absence can itself be the counterpositive of another absence, and if so whether the absence of the second absence is a third one, etc. Vācaspati Miśra and Udayana state categorically that there is no absence of an absence, since such an entity is a positive one, a presence (*bhāva*).

Kaṇāda distinguished 4 varieties of nonexistence, and the distinction remains unchanged in most subsequent treatments. The 4 varieties are: (1) prior nonexistence, as for example the absence of a jar before it is made; (2) posterior nonexistence, as for example the absence of the jar after it has been destroyed: (3) mutual absence, which is merely the absence of any thing in whatever is different

from it, e.g., the absence of pot in cloth; and (4) absolute absence, which is the nonexistence of a thing in another thing at all times, past, present and future.

To this list Candramati adds a fifth variety: (5) relational absence (*saṃsargābhāva*), because of which certain sorts of things do not become related to certain other sorts, e.g., *sattā* is absent from inherence in this way. However, Vācaspati Miśra returns the list to the 4 Kaṇāda recognized by treating "relational absence" as a general rubric for any absence involving a positive relation. Thus he subdivides absences initially into 2 groups: (1) mutual absence, or absence of identity, and (2) relational absence, which has 3 subvarieties: prior, posterior, and absolute absence.

Jayanta Bhaṭṭa has a unique theory, according to which prior and posterior absence are the only two kinds. He attempts to bring the others mentioned above under one of the two, prior and posterior absence. Mutual absence is prior absence of one thing in a second thing which is different from the first. Jayanta then classifies absolute absence as a further variety of mutual absence, the kind where there are no temporal limits; he gives the name "limited absence" (*apekṣābhāva*) to mutual absences which are considered within limits. He also refers to still another kind of absence "absence of capacity" (*sāmarthyābhāva*), apparently proposed by others known to Jayanta; he dismisses this kind as either prior or posterior absence depending on the case.

8

MEANING AND TRUTH

We turn now from the ontological speculations of the Naiyāyikas to their methodology and epistemology. The various topics raised in discussions of these matters interpenetrate in complicated ways, and there is no clear-cut expository tradition to follow. Since meaning and truth have been analyzed in detail by recent Western philosophers, I have approached Nyāya material in ways reminiscent of certain parallel Western analyses. In this I am reflecting a growing tendency on the part of recent Nyāya scholars.

I. *Meaning*

The theory of meaning is logically prior to theory of knowledge in the following respect. If we suppose, as is natural, that truth is a property or relation which accrues to a judgment or its expression, no matter what it is in virtue of which this property or relation accrues, at least we can say that whether or not a judgment or expression is true or false cannot very well be decided until we know what the judgment means, or what the expression expresses. Whether truth is a function of correspondence between our judgments and the way the world is, or of coherence with a maximum number of other judgments, or merely successful prediction of future events, in any case we cannot know how to apply the test, or what it would mean to do so, until we know the nature of that to which we propose to apply it. For this reason we may best start our discussion of theory of knowledge by considering the Nyāya theory of meaning.

We have seen above that knowledge (*jñāna*) appears in the Vaiśeṣika ontological scheme as a quality of the self. Though in translating *jñāna* as "knowledge" we have followed traditional practice, it is time to become more careful. The term "knowledge" in Western usage is used in several ways, and in a sense the way in which the term *jñāna* behaves in Nyāya fails to answer to any of the common Western

habits of use of "knowledge." The reason for this is that, since qualities are transitory, as we saw, *jñānas* come and go as qualities of the knowing self who entertains them. Thus we shall have to speak of "a knowledge"[1] if we wish to use "knowledge" as translation for *jñāna* and recognize the fact that each self entertains indefinite numbers of these entities.

Then what is a knowledge? It is best thought of as a judgment, except that we must realize that in referring to a judgment that, say, the cat is on the mat, we are referring to someone's notion, held at a certain time, that the cat is on the mat.[2] Let us translate *jñāna*, then, as "judgment" from now on, realizing however that it is not the judgment as (timeless) proposition which is referred to but the actual judging performed by the knower at some time. By rendering *jñāna* as "judgment" we also have the added advantage that we shall not be tempted to suppose that all *jñānas* are necessarily correct (since to know something is to have a true belief). And indeed there is another word, as Mohanty points out, which more closely approximates this sense of "(true) knowledge," namely *pramā*.[3]

Judgments may be true or false, then. But is a judgment any bit of awareness, or must a judgment have a structure of a certain sort to be capable of being true or false? This is a fundamental question which receives extended attention by all serious writers on Indian thought. And it appears that there was an almost irresistible tendency to discuss this fundamental question largely in terms of the possible structure, or lack of structure, that is possessed by the linguistic expression through which we communicate our judgments. Thus Indian thought anticipated the "linguistic turn" of modern analytic philosophy.

A crucial distinction which is formulated in detail by Vācaspati Miśra and perhaps anticipated by others previously is the distinction between *nirvikalpaka* and *savikalpaka* judgments. *Nirvikalpaka* is frequently translated as "indeterminate," *savikalpaka* as "determinate." Mohanty proposes to understand by *savikalpaka* judgment a judgment which is "propositional," in the sense that the sentence which expresses the judgment entertains a proposition in one of several ways (it may assert or deny, doubt, exhort, command, etc.) But this is helpful only if we understand the conditions under which we have a proposition.

The full development of the analysis of the notion of a propositional or "determinate" judgment is not concluded until Navya-nyāya times, but it will be helpful to anticipate that development here. According to the later theorists a proposition has a minimal triadic consti-

tution : it must consist, at the minimum, of an entity, called the qualified, related to a second entity, called the qualifier, by a relation, called the qualified-qualifier-relation. The three entities (including the relation) must be things included under one or another of the categories in the ontological scheme already reviewed. Thus a proposition is a kind of minimal "possible state-of-affairs," on the understanding that only actual entities can enter into such states-of-affairs.

A propositional judgment, then, is one such that the sentence expressing it entertains a proposition.[4] But this too is insufficient, for we have yet to understand under what conditions a sentence expresses a judgment. Still, it is now clear that the judgment, the sentence, and the proposition are three distinct things and that the grammatical considerations relating to the nature of a sentence are distinct from the ontological considerations relating to the minimal constitution of propositions. Nevertheless, though distinct, the grammatical considerations turn out to be parallel to the ontological ones.

According to Nyāya theory a sentence must satisfy 3 (or later, 4) conditions in order to express a judgment. Each of these conditions applies to the words which make up the sentence. The conditions are : (1) the words must be such that the expectancies set up by each are satisfied by the others. This requirement is called *ākāṁkṣā* or mutual expectancy. By appeal to this requirement strings of words which do not constitute syntactically well-formed expressions are excluded from the class of sentences. (2) A second requirement is *yogyatā* or semantical fitness. A string of words may be syntactically well-formed and yet not constitute a (meaningful) sentence. E.g., "He wets it with fire" is cited as a nonexpressive string of words, failing the requirement of semantical fitness. (3) The third requirement is contiguity (*saṃnidhi*), and merely requires that there be no great gap between the utterance (or writing together) of the words making up the sentence. Otherwise one could consider the subject of the first sentence in one book and the predicate of the last sentence of another to constitute a sentence expressing a judgment. (4) Some later Naiyāyikas added a fourth requirement, that a string of words must be uttered with intent to communicate a proposition, and that it is the nature of this intention (*tātparya*) which unambiguously identifies the meanings of the constituent words.

A judgment is propositional, we have said, when the sentence expressing it entertains a proposition. But not all judgments are propositional (*savikalpaka*); some are nonpropositional or "indeterminate" (*nirvikalpaka*). There is divergence of opinion within Nyāya as to

the nature of the distinction between *savikalpaka* and *nirvikalpaka* judgments. Jayanta Bhaṭṭa holds that the distinction is that between a judgment expressed and one not expressed; he thinks of *nirvikalpaka* as a stage in awareness where we have become aware of something but have not yet found a word for it. But this view is not accepted by most Naiyāyikas. Rather the more usual way of marking the distinction is to say that in *nirvikalpaka* judgment we entertain the elements of a proposition but have not as yet synthesized them into a proposition, whereas in *savikalpaka* judgment we have made this synthesis. Only under the latter condition can a sentence be formed entertaining the proposition, and if we recall that according to Nyāya whatever is knowable is nameable we can conclude that for every proposition it is possible to construct a sentence which entertains it.

One might suppose from this that we might express a nonpropositional (*nirvikalpaka*) judgment by, say, the use of a single word rather than a sentence, since such a word would not entertain a proposition. This would be a mistaken way of understanding Nyāya. For even to identify something as of a kind is already to formulate a sentence which entertains a proposition. If I identify the object before me as "jar," my knowledge of it is propositional, since the utterance of the word "jar" is tantamount to saying "this is a jar", a sentence which entertains (in the asserting mood) the proposition whose qualificand is the substance before me, whose qualifier is *jarness*, and the qualificand-qualifier relation between them is inherence. About the best one can do in identifying the content of a nonpropositional judgmen is to think of it as a something or other, for to identify or classify it further signifies that one has proceeded to propositional judgment Put another way, propositional judgments involve the comparison or contrast of the "subject" of the judgment with other things, and since every use of words no matter how minimal suggests such a comparison or contrast, nonpropositional judgments are inexpressible.

The foregoing account implies a thesis which is highly controversial in Indian grammatical theory, the defense of which occupies the time of a number of Naiyāyikas. The controversial implication is that individual words have meaning independently of their role in a sentence. As we have put it above, this is because each occurrence of a word is a kind of little sentence of its own, correlated with a minimal proposition. We may think of the matter thus. Let us consider the sentence (A) "the cat is on the mat." According to Nyāya the proposition this sentence entertains is a good deal more complicated than one might think. For "the cat" itself entertains the proposition *this-*

inherence-catness and "the mat" entertains the proposition *that-inherence-matness*, and *this* and *that* are qualified by the quality of *contact*, in which inheres *contactness*; it is this *pair-inherence-contactness* which is entertained by the word "on." It is the whole complex proposition which (A) entertains, and we understand the sentence (A) because we understand the component "sentences" implied in the words which make up (A). Thus "mutual expectancy" refers to the syntactical functions of the words "the cat," "on," and "the mat," while "semantical fitness" applies to the fact that the propositions entertained by those three words can be connected without violating fundamental rules of Vaiśeṣika ontology.

The view that words have meanings of their own independently of the sentences in which they are embedded is called *abhihitānvaya-vāda*. It is a view espoused by the Naiyāyikas and the Bhāṭṭa Mīmāṃsakas against the Prābhākara Mīmāṃsakas and Vedāntins, who believe that words do not convey meaning except in the context of a sentence. This latter view is known as *anvitābhidhānavāda*. The distinction has frequently been misrepresented. For example, Kunjunni Raja in his generally accurate book on *Indian Theories of Meaning* writes "The commonplace statement in modern linguistics that the sentence is the unit of speech is comparable to the *anvitābhidhāna* theory," implying that modern linguists favor that theory as opposed to the Naiyāyikas.[5] But as we have seen Nyāya also believes that the sentence is the unit of speech; it, however, holds that what we call words are in effect minimal sentences. It is not that the Naiyāyika is guilty of the kind of procrustean theory which Wittgenstein finds and derides in the writings of Augustine.[6] The Nyāya theory, whether ultimately correct or illuminating, is at least pretty sophisticated.

The idea that a word functions as a minimal sentence can be traced back even to the *Nyāyasūtras*. Gautama raises the question as to what a word denotes — is it an individual, a property, or the characteristic form of the individual which shows its nature? Gautama's answer is that it is all three of these. Vyomaśiva specifically says that the meaning of a word is the individual possessing its differentiating property.

Despite this tendency to treat words as sentences it must be stressed that Naiyāyikas use different concepts in analyzing words from the ones used in analyzing sentences. Words have primary meanings (*abhidhā*; *śakti*) and secondary meaning (*lakṣaṇā*). These terms are not applicable in describing the meaning of sentences, where "sentence" is to be understood as an expression arising from a combina-

tion of words. It is the Nyāya view that the meaning of a sentence results from our remembering the earlier words' meanings, until after the last word through "collective memory" (*sāmūhālambana-smṛti*) a simultaneous judgment concerning the meaning of the collection arises. This judgment is called *śabdabodha*, "verbal understanding."[9] Jayanta argued that it is made possible by the intentionality (*tātparya*) of the component words, which combine to relate them together to form the sentence and produce the verbal understanding.

The Nyāya-Vaiśeṣika theory about how sentences come to be meaningful should be contrasted with the view of certain Grammarians who hold that a peculiar entity called *sphoṭa* must be postulated to account for the facts. The most notable defender of this notion was perhaps Bhartṛhari, author of *Vākyapadīya*. Bhartṛhari finds three characteristic aspects in any segment of discourse: (1) the particular noise (*vaikṛtadhvani*) produced by the speaker and heard by the listener; (2) the phonological pattern (*prakṛtadhvani*) of which (1) is an instance; (3) the *sphoṭa*, which is an entity expressed by (1) and signifying an object. Kunjunni Raja calls it an "integral symbol."[7] According to Bhartṛhari one must postulate in addition to the noises this integral symbol, since otherwise one would be unable to explain how it is that words have significance, as well as how the meanings of the component words produce a verbal understanding of the sentence. He thinks of a word as a group of noises each of which is not in itself significant. How is it then, he asks, that the group has meaning while none of its components do? It must be, he contends, that the word is timelessly and naturally connected to its *sphoṭa*, which is intentional toward the object meant; then in producing the noises which compose the word we express first vaguely and finally concretely that *sphoṭa*. Bhartṛhari feels that we directly experience this *sphoṭa*, a fact which is shown by our acknowledgment that the word or sentence has a single unitary meaning even though we have not fully grasped it yet. Furthermore, he argues, the only other alternative explanation is that our understanding of the word is produced by the impact of each noise on our ear and mind, the sum constituting the cause of the understanding; but in this case "lesson" and "unless" should be synonymous, since their phonetic components are the same.

Śrīdhara gives a rather extensive refutation of the *sphoṭa* doctrine, although he is not the first nor certainly the last among our philosophers to treat the matter. His main complaint is ontological: it is unnecessary to postulate an additional entity which is the meaning of the word. It is true that we experience words as collective unities rather than as distributive pluralities, but this experience need not

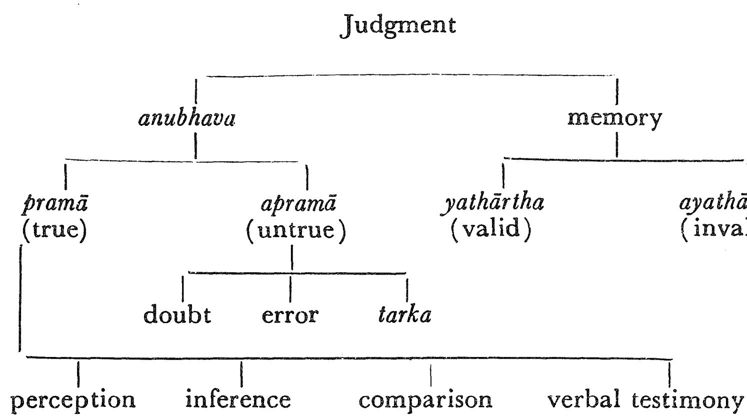
be explained in the fashion Bhartṛhari suggests. There is no reason not to suppose that each sound sets down a mental trace in the listener, that the meaning of the word is grasped when the last sound is heard and construed together with the memories of the previous ones. This will also explain the order of the component noises: true, they must be fixed, but the order is something which we can remember and so we will not confuse "lesson" with "unless." After all, the *sphoṭa-vādin* will be forced to postulate a separate *sphoṭa* for each phoneme, but Śrīdhara saves him the necessity of postulating still another such capacity for the word.

Discussion over these sophisticated grammatical theories came into Nyāya after the first few centuries of its existence. The old Naiyāyikas tended to see their major opponents as the Mīmāṃsakas, who suppose that sound is eternal and that the meanings of words are natural and fixed rather than conventional and revisable. These issues are independent of those just mentioned; one may reject *sphoṭa* whether one believes that a given noise necessarily signifies a certain object for all time or whether one believes that it signifies that object by tacit agreement of the speakers of the language and for as long as it is convenient to construe it that way. Thus the later Mīmāṃsakas and Naiyāyikas were able to ally against the Grammarians' espousal of *sphoṭa* despite their continuing differences over the origin and eternality of meanings.

Kaṇāda claims that the naming relation is conventional, and Gautama provides several arguments to show that sounds are non-eternal. The Mīmāṃsā motivation for holding sound to be eternal was to safeguard the authority of the Vedas, among other things. The Naiyāyika's attitude to the question of the meaning of Vedic utterances is that God instituted the conventions which govern the proper meaning of these injunctions, but that we learned these conventions from those who first committed them to memory, thus accounting for possible failure to understand and gradual decay of the tradition. The variety of arguments for and against the eternality of sound in this discussion is tremendous; the reader is referred to the summaries below if he wishes to collect some of them.

II. *Kinds of Judgments*

We have seen above one division of judgments into propositional and nonpropositional. Another division, of equal or greater importance to our discussion, is summarized in a useful chart provided by Satischandra Chatterjee.[8]



"*Anubhava* includes all 'presentative' apprehension," explains Ganganatha Jha, as opposed to memory (*smṛti*), which is representative of what has been previously presented.[9] Memory judgments can represent those previous presentations as they really were (*yathārtha*) or falsely (*ayathārtha*). On the other hand, presentative judgments require a more complex analysis. First, the above chart divides, such judgments into true (*pramā*) and untrue (*apramā*). But "untrue" does not here mean "false"; false presentative judgment (*viparyaya*, or *mithyā*) is only one of three kinds of untrue judgments, the other two being judgments of doubt and judgments expressing a kind of reasoning called *tarka*. We shall see presently why these last are classified in this way. True presentative judgments, are, finally, subdivided into 4 types according to whether their validity stems from perception, inference, comparison, or verbal testimony. We shall review all of these types of judgments shortly.

Chatterji s list is not canonical—there are deviations among our philosophers. It is provided only as a starting-point for our discussion.

III. *Truth—Its Criterion and Nature*

Nyāya couches its discussion of truth and error in a vocabulary which is peculiar and important enough to warrant a rather careful exposition. This vocabulary makes an early appearance. Oberhammer thinks it comes to Vātsyāyana from some previous commentary on the *Nyāyasūtras*, since he finds it in Kauṇḍinya's commentary on the *Pāśupatasūtras*, a work in which Kauṇḍinya appears to derive his Nyāya from an older source than Vātsyāyana.[10] The school discriminates a number of technical terms all derived from the

common root —mā+pra, meaning "to measure out." *Pramā* is a term designating a true judgment; *pramātva* is the universal property shared by all true judgments. Frequently this property is referred to by another word, *prāmāṇya*, which is, however, ambiguous, as Mohanty demonstrates.[11] The truth of a judgment is grounded in what is called a *pramāṇa*, an instrument of (true) knowledge. As we see from consulting the preceding chart, Nyāya recognizes four such instruments. The property which all such instruments have in common is also called *prāmāṇya* — thus providing a source of confusion. A *pramāṇa* or instrument of knowledge is another true judgment which validates the judgment whose truth is in question; the latter judgment may be termed the *pramiti*. An object "grasped" by a true judgment, that is, which constitutes or is included in the content of a true judgment, is called a *prameya*. The person who asserts a true judgment is called a *pramātṛ*.

It may be helpful to distinguish at the outset between two questions: (1) What is the criterion of truth? and (2) What is the nature of truth? I say it may be helpful, because it is difficult to make out that any such distinction is consistently adhered to by our philosophers, although it is sometimes alluded to. When such allusions are offered, they are usually to the following purpose: the criterion of truth is simply successful activity. More particularly, a true judgment produces in the knower an understanding of the object of knowledge which is reflected in the fact that his subsequent cognition(s) enable him to carry out his purposive activities involving the object. One might say that as a general tendency Naiyāyikas are verificationists, even pragmatists in their theory of the criterion of truth. However, as is familiar to students of recent Western epistemology, there may be differing points of view among verificationists about the nature of truth. One may hold that truth consists in the judgment's "copying" its object or corresponding to "the facts," while another may hold that the judgment's truth consists in its coherence with other judgments — the latter belief not requiring the existence of a world of external objects to be "copied" at all. Yet both of the above may agree that we discover truth by verificatory, or at least confirmatory, procedures.

The serious concerns about truth in Nyāya-Vaiśeṣika arise over its nature rather than its criterion, then, although in attacking an opponent's view of the nature of truth our philosophers do not hesitate to invoke the argument that the opponent's theory does not provide an adequate criterion, an argument that seems to undermine the distinction.

What, then, do our philosophers have to say about the *nature* of truth? In what does truth consist? The handbook of Varadarāja may be taken as a convenient source of the developed view, which turns out to be quite simple: truth is *anubhava* — a presentational judgment — that is *yathārtha*, as the object actually is. As indicated in the Chart valid memory is also termed *yathārtha*; it will be convenient to render *yāthārthya* as "validity" and *pramātva* as "truth," in which case we could say that on Varadarāja's account a true judgment is a valid presentational judgment.

The reader may well complain immediately that this does not tell him what he wants to know, since what he wants to know is precisely how to tell how objects *are* from how they *are not*, i.e., what is validity? Before proceeding to deal with that, however, let us pause to review alternative theories with which Varadarāja takes it he has to contend — for his definition of truth, though disarmingly simple, is carefully gauged to avoid the errors of other views.

The Buddhists define truth as *avisaṃvāditva*—nondeviance—or *arthakriyākāritva*—effectiveness in producing successful activity. The latter may be acceptable as criterion but not as an account of the nature of truth. The former fails as a definition, since it includes memory (which is valid but not true) and excludes either propositional or nonpropositional judgments — since the Buddhists hold all propositional judgments to be untrue, and even if they agree to admit them everything will be deviant from everything else. This is similar to recent Western critiques of the coherence theory of truth, which attempts to show that coherence alone does not suffice to uniquely identify an accurate conceptual scheme; indefinitely many internally consistent combinations of judgments and their negations can be constructed (in any interestingly rich systematic context) such that each is inconsistent with every other. The effect of this critique (and the intended effect of Varadarāja's argument) is to suggest that there must be correspondence of some sort between the contents of some of our judgments and the nature of objects to which these judgments refer, a nature which is independent of our knowing.

Other definitions of truth fail likewise to satisfy the Naiyāyika such as Varadarāja because they either rule out judgments which are *ex hypothesi* true or because they allow judgments which are *ex hypothesi* not true. The Mīmāṃsakas, for example, offered such alternative definitions. Prabhākara's school has it that truth consists just in the judgment's being presentational (rather than representational as memory is). The Prābhākaras think that all judgments are true in themselves; error arises when we fail to discriminate several judg-

ments from one another. From Varadarāja's standpoint, however, this rules propositional judgments out as untrue generically, and that violates the conditions he has in mind as requirements for any successful definition of truth. For the Prābhākara holds that propositional judgments involve the combination of more than one simple (true) judgment; thus, suggests Varadarāja, they must be untrue — or if not, the Prābhākara still owes us a definition of truth. Varadarāja remains unsatisfied with attempts by the Prābhākarite to modify his theory to meet the Naiyāyika's requirement.

Kumārila's branch of Mīmāṃsā, on the other hand, takes the definition of truth to involve the judger's not having previously known the object of the judgment. This is a way of excluding memory from the scope of the definition. Unfortunately it allows into the scope of the definition all untrue judgments which are not derived from memory.

It appears, then, that Varadarāja has a fairly precise conception of what a definition of "truth" should accomplish — what it should exclude and what it should include — and his claim is that his disarmingly simple definition accomplishes this where other plausible proposals fail. But we have not yet answered the very real difficulty of the reader who feels cheated because he fails to understand the nature of *validity* (*yāthārthya*) in terms of which "truth" has been defined by Varadarāja.

And indeed no definition of "validity" is, to my knowledge, given.[12] For to be valid is just to describe things as they are, and to know how things are is to have a set of successful definitions interlocked so as to constitute a *system*.[13] The emphasis on definitions grows in the later stages of our period. In the earlier portions it was sufficient to be able to provide powerful *reasons* for supposing that one's account of how things are corresponds to the way they really are, and that in turn was thought tantamount to grounding one's assertions on a *pramāṇa* — an instrument of knowledge — and backing this with a general justification of the instrument appealed to. In this way one finds that the question "which are the *pramāṇas*?" occupies an extensive and important section in each of the major works of the literature, especially in the earlier period. We shall soon turn to this question.

But the recalcitrant reader may not be inclined to accept that this is a way to proceed. He may have a rather specific objection on his mind, one which seems to undercut any attempt to answer the question about the nature of validity by any appeal to *pramāṇas*. His objection is this. The Naiyāyika says that the way to justify the validity of judgment *p* is by showing that it is grounded in a *pramāṇa*.

But a *pramāṇa* is, on Nyāya grounds, another judgment, *q*. Therefore in order that *q* be shown to be valid, appeal will have to be made to reasons justifying the inclusion of that *pramāṇa* as a proper ground. Such a reason will be another judgment, *r*. It in turn will have to be grounded, etc., etc., ad infinitum. Thus it would seem that somewhere even the Naiyāyika must admit that there are judgments which are *self-validating*. And once he has admitted this, he has admitted his inability to answer my question. For he could as well have said, to my problem about how *p* is known to be valid, that it is self-validating — since what he intends to do instead will lead him eventually to assert the self-validating character of some other judgment which grounds p.

The question as to whether judgments validate themselves or not is one of the hotly disputed issues on which all the schools of Indian philosophy have something unique to contribute. Its importance should be clear from what has just been said, but if further emphasis is needed, we may remark that the question of whether empirical judgments are sometimes indubitable, or necessary, is a recurrent theme in Western philosophy of the modern period as well, and a more important question is hard to name.

On this question the Naiyāyikas are "fallibilists"—that is, they hold that no empirical judgments are necessarily or indubitably true. The validity of such judgments is extrinsic — it has to be justified by inference from grounds, that is to say, from other judgments. But then what grounds these other judgments? Here the Nyāya answer gets quite interesting and subtle, and it is by no means agreed upon by all our philosophers. Vācaspati appears ready to admit that certain inferences are intrinsically valid, but it turns out that those inferences are the ones about which doubt does not normally arise. The picture which emerges from his discussion, and it is traceable in other writers, both prior to and after him, is that inferential judgments are valid until someone doubts them. The search for more and more ultimate grounds eventually comes to rest in an inference which rests on a generalization which no one questions. Vācaspati evidently does not take seriously the possibility that one might, like Descartes, set out systematically to doubt every assertion on principle. He takes the question of whether validity may be intrinsic to be a psychological question, namely "do we have inferential knowledge which we do not doubt." The answer he gives to this is "yes." But of course one might counter that this psychological question is not the same as the logical question about the *grounds* for believing a judgment to be true. This latter question is perhaps not clearly

distinguished until Navya-nyāya times, but not all of our philosophers assent to Vācaspati's views on the matter.

A similar problem arises for any empirical account of the criterion of truth which locates that criterion in the effectiveness of a judgment in leading us to expectations that are satisfied subsequently, that is, confirmed. The confirming judgments, it may be pointed out, are empirical and thus need to be grounded in turn, and this leads to a regress similar to the one which was just urged, if not indeed the same. On this point, too, Vācaspati's attitude is that there are certain judgments which we do not question, not so much because they are not in principle questionable, but rather because they are familiar cases. But just what it is precisely that constitutes a "familiar case" is not easy to say. Udayana in the *Pariśuddhi* valiantly tried to clarify the notion.[14]

Although not all Naiyāyikas accept Vācaspati's theory as a sketched above, it is at least generally accepted that validity is extrinsic in the sense that its grounds lie outside itself. This thesis, however, is also accepted by the Buddhists. Indeed, as early as the 8th century one finds surveys of Indian philosophy (e.g., as found in Śāntarakṣita's *Tattvasaṃgraha*) laying out four possible positions on the subject of validity, each associated with an important school of thought. Thus the Naiyāyika believes that both the validity of true judgments and the invalidity of false ones depend upon grounds lying outside of the judgments themselves. The Buddhists agree that validity is extrinsic, but argue that invalidity is intrinsic, since according to them any verbalized judgment is ipso facto false, being infected with concepts (*vikalpa*). The Mīmāṃsakas and older Vedāntins take a third position; according to them, judgments are true in themselves i.e., intrinsically valid. When falsity infects a judgment what happens is that we entertain a complex proposition as if it were a simple one, only to discover our error subsequently, so that invalidity is extrinsic even though validity is intrinsic. Finally, the Sāṃkhya position is said to be that both the validity and invalidity of judgments are intrinsic and need no reference to external grounds for their justification.

Jayanta sets out to deal with the positions alternative to the Naiyāyikas' own. The Sāṃkhya position is absurd, since if a given judgment's validity is intrinsic as well as its invalidity, we can never discover that a judgment we once believed to be true in fact is false. As for the Buddhist view, Jayanta believes that it can be controverted by pointing to the fact that we do not initiate action predicated on a judgment unless we believe it to be true. But if as the Buddhist asserts all judgments are intrinsically invalid, we should never initiate

action on the basis of a judgment until it has been grounded subsequently in another judgment. And this is just not the way we behave. It might be thought that in adopting this line of argument Jayanta is refuting his own theory, since the Naiyāyika also believes that judgments are not intrinsically invalid — and not intrinsically valid, either! Thus one might argue that either the Nyāya view is refuted by the argument Jayanta uses against Buddhism, or else he should abandon that line of argument. However, Jayanta can make out an answer : it is that we do not need to be convinced that a judgment is necessarily true (— valid) in order to act upon it, but if we are convinced that it is necessarily untrue (— invalid) we shall not act upon it. The Nyāya position is that no (empirical) judgments are necessarily true or necessarily false, while the Buddhist appears to assert that judgments are necessarily false until proved otherwise. Jayanta believes that all that is necessary to initiate action on the basis of a judgment is our belief that the judgment has a sufficient degree of probability. His belief is consistent with the doctrine that truth is extrinsic.

It is worth noting that this whole question of the intrinsic or extrinsic nature of validity and invalidity is to be carefully distinguished from a different topic with which it is frequently confused. Philosophers in India are also fond of discussing whether judgement illumines itself (*svaprakāśa*) or not. That is, another problem is : what knows knowledge? Is it the judgment which is "self-evident", or is another judgment required to know the first one? Again the various schools of Indian thought divide : the Advaitins, Prābhākara Mīmāṃsakas, and Buddhists hold that a judgment constitutes self-awareness, while the Bhāṭṭa Mīmāṃsakas and Naiyāyikas hold that a subsequent and distinct judgment is required.

The type of judgment which enables us to subsequently grasp an initial judgment— something in the form of "I judge that the cat is on the mat" — is called *anuvyavasāya* in Nyāya-Vaiśeṣika. Vācaspati Miśra holds that, like inference, *anuvyavasāya* is self-validating unless it is doubted. Udayana underlines the strength of the Nyāya attitude that no empirical judgment is necessarily true, no empirical judgment is necessarily untrue, no descriptions free from possible fallacy.

IV. *Perception* : Its Definition

Next let us turn to the first of the four sources of true judgments, namely perception. We have seen in previous chapters the various

views held by our philosophers concerning whether substances, qualities, universals, absences, and other things are perceptible. Here we will raise a different sort of question. Our question now is : what necessary conditions must a judgment satisfy in order that it be accounted a veridical perceptual judgment ?

It will be evident that this question can hardly be settled without clarifying the nature of erroneous judgments of perception as well.

The classical definition of perception is given by Gautama in the fourth *sūtra* of the first chapter of the first book of the *Nyāyasūtras*; its prominent position typifies the importance all Naiyāyikas attach to it. Gautama's definition sets forth 4 conditions each of which is necessary for a judgment to be a true perceptual judgment. As Gautama has it, a judgment is perceptual and true only if (1) it is produced from contact between sense organ and an object; (2) it is *avyapadeśya*, "not verbal"; (3) it does not wander (*avyabhicāra*); and (4) it is definite (*vyavasāyātmaka*). These last three terms receive a lot of attention from the commentators, and all 4 conditions are defended at length. I take them in order.

1. *Sense-Object Contact* (*indriyārthasannikarṣa*) : This is a, or perhaps the, requirement which distinguishes perceptual judgments from other kinds, such as inferential. Gautama already is aware of an objection, to the effect that in seeing things in a mirror there is no sense-object contact; Gautama denies that that is so, holding that the ray from the visual organ bounces off the mirror and grasps the object. But actually this much of the definition is relatively noncontroversial. The only controversial question is why this particular contact is singled out for sole recognition in the definition. Vātsyāyana has an opponent point out that there will be no perception if there is not contact between the self and the internal organ, so that that contact should also be mentioned. Indeed, the Vaiśeṣika writers beginning with Candramati speak not just of sense-object contact but of more complex relationships of fourfold, threefold and twofold contact. Normal perception of external objects through the visual organ requires fourfold contact — the senses must contact the object, the internal organ must contact the sense-organ(s), and the self must contact the internal organ; thus 4 distinct types of entities must be in contact directly or indirectly. Auditory perception requires threefold contact, since the object grasped by the auditory sense-organ is identical with the substance constituting the organ itself, namely *ākāśa*. And kinaesthetic perception of pleasure, pain, and other psychological qualities are said by Candramati and Praśasta-

pāda to require only contact between the self and the internal organ. Yogic perception also requires less complex sorts of contact.

Gautama's requirement, then, must be understood to be limited in its application to normal perception of external objects. But if we take "contact" literally in the requirement, it will not even cover all such cases, since we can perceive qualities as well as substances, not to speak of universal properties inhering in substances and qualities, absences, and whatever. Uddyotakara attends to this problem by a sixfold classification of types of "sense-object connection," only one of which is contact in the literal, ontological sense described earlier. Uddyotakara's 6 types of sense-object connection are (1) contact, when an organ grasps a substance; (2) inherence in what is conjoined, as when the organ grasps a quality or universal property which inheres in a substance which is in contact with the organ; (3) inherence in what inheres in what is conjoined with the organ, as for example when the visual organ grasps the redness (a property) inhering in the red color which in turn inheres in a jar which is in contact with the visual organ; (4) inherence *simpliciter*, which is the relation between the auditory organ (= *ākāśa*) and the sound (a quality) which inheres in the *ākāśa*; (5) inherence in what inheres in the sense-organ, as when we grasp with our auditory organ the loudness (a property) inhering in a sound which inheres in the *ākāśa* (= the auditory organ); (6) qualifier-qualificand relation (see above, p. 50), when we perceive absences or inherence.

2. *Non-Verbal* (*avyapadeśya*) : The meaning which Gautama attached to this word is far from clear, and commentators vary widely in interpreting it. The general idea, presumably, was an attempt to exclude from the scope of the definition of true perceptual judgments those which stem from the fourth *pramāṇa*, verbal authority. The matter was aggravated, however, by the proximity of Buddhists, and Prābhākara Mīmāṃsakas who, as we saw, hold that only non-propositional judgments can be perceptual in any case. The Naiyāyikas do not subscribe to this view. They do not wish to exclude from the class of true perceptual judgments those which are expressed in words, for reasons reviewed above. Thus they wish to find a way of excluding from perceptual judgments those judgments which arise from verbal origins, but without excluding propositional judgments from the class of veridical perceptual judgments. This turns out to be a difficult task.

To get a feel for the problem, consider the judgment (A) "this is a cow", uttered in the presence of a cow and reporting one's veridical

perception of the animal. The Buddhist argues — and he is followed by Grammarians and some Mīmāṃsakas — that this judgment is produced in part by our understanding of the meanings of the words "this", "cow", etc., and that indeed such is the case with regard to any propositional judgment. Vātsyāyana attempts to answer by pointing out that sometimes we perceive a thing without knowing a word for it, but he does not make it clear whether such a perception should be counted as propositional or not. (Presumably the distinction had not yet been introduced.) The Buddhists, notably Dignāga, developed their theory further. As soon as verbal understanding is involved, say they, the judgment is no longer perceptual since it involves inferential elements, namely, the inference that this individual here confronted has the property of *cowness* by virtue of which it is appropriate to apply the word "cow" to it. As a result, only nonpropositional judgments can be considered perceptual.

Uddyotakara's reply to this is rather weak. Insofar as the Buddhist is willing to attempt a definition, in words, of what it is to be a perceptual judgment, he is assuming that perceptual judgments have some connection with words; thus he cannot without contradicting himself say that perceptual judgments have no connection with words. This is hardly convincing, however, constituting a rather glaring case of confusing use and mention: the Buddhist claims that any judgment expressed in words is nonperceptual, but can freely admit that such a judgment can be mentioned in words.

Jayanta's procedure is more cogent. As for (A), he readily admits that it is not a perceptual judgment but a verbal one, and so excluded by the term *avyapadeśya*. A verbal knowledge, he opines, is one which is born jointly from seeing an object and hearing a word, and (A) is *ex hypothesi* such a judgment. The Buddhist, however, erroneously infers from this admission that there are no propositional perceptual judgments. *Non sequitur*. Verbal knowledge *presupposes* propositional perceptual judgments — otherwise how could we ever learn what words denote ? Jayanta's picture is this; nonpropositional perceptual judgments grasp an object independently of any relation to a word. The Buddhist views this as involving a direct confrontation of a sort of "bare particular", an entity of no kind per se. Very well, says Jayanta, but the Buddhist also admits that subsequently this bare particular gets classified as a cow, and he provides us no help when we ask how it is that if we say it is a cow we are right, but if we say it is a horse we are wrong. In other words, it will not do to suppose that a bare particular becomes a cow merely in virtue of our linking the particular to a word, since then the same particular

can be a cow for me and a horse for you, or a cow at one time and a horse a moment later, merely by virtue of my saying so. This is the weakness of the Buddhist's extreme nominalism. Rather, we must postulate an intervening phase of perception, in which we link the particular with a property given to us by memory; it is after this stage that we associate — through memory or stipulation — a word with the property and produce the verbal knowledge (A). This intervening stage is what the Naiyāyika means to speak of by the term "propositional perceptual judgment."

Jayanta's analysis is deep and, I think, sensible. He expressly repudiates the treatment of this question by "earlier logicians." By no means all subsequent logicians follow him, however. Vācaspati Miśra, for example, reads Gautama's definition quite differently from his predecessors. His interpretation he attributes to his mentor Trilocana. What it involves is parsing the definition so that the term *avyapadeśya* is not a requirement of perceptual judgments but rather a description of nonpropositional judgments, to be paired with "well-defined" which is to be construed as descriptive of propositional judgments. Thus Gautama's definition turns out to say that a true perceptual judgment must be produced from sense-object connection and not wander, and it may be either propositional or not!

The distinction between propositional and nonpropositional judgments undergoes a subtle but distinct change in later times also. Whereas in the early writers up to Jayanta a judgment's being propositional was connected to its expressibility, in later times a propositional judgment was thought of as any judgment which had as content a qualified entity. If the reader will recall the use of "minimal proposition" which I indulged in on p. 149, we might say that in this later usage a judgment whose appropriate expression would be through a minimal proposition constitutes the simplest sort of propositional judgment. The difference from the older view is that a cow can be known through nonpropositional perception as a cow, not merely as a bare particular as in Buddhism. This conveniently bypasses the nub of the Buddhist's main point, of course, but it reflects a natural progression. For, returning to Jayanta's analysis for a moment, suppose one were to ask how it is that we are able to identify through memory the appropriate property with which to clothe the bare particular we grasp through nonpropositional perception? Why is the Naiyāyika any better off with that problem than the Buddhist is with the one Jayanta saddles him with? The only answer that seems possible for the Naiyāyika is to repudiate bare particulars altogether. We recognize *cowness* through memory as the appropriate property be-

cause we cognize the cow as a cow, even though we have not as yet related her to the property. Thus the Naiyāyika is forced eventually to take a stand against uninterpreted Givens; with Kant he affirms that percepts without concepts are blind.

3. *Does Not Wander* (*avyabhicāra*) : Gautama's definition is intended to distinguish veridical perception from erroneous judgments. The condition that a perceptual judgment must not "wander" is Gautama's way of insisting on that condition. However, it hardly clarifies the notion of truth to say that a true judgment is one which does not wander, i.e., which is not erroneous. In fact, the word in the definition receives fairly little attention by our philosophers by comparison : the usual comment is merely that this requirement serves to exclude erroneous judgments. But the later writers had much to say about error, although they chose to discuss it under different rubrics.

Examples of erroneous perceptual judgments include, among the most typical, mirages, perception of two moons when one pushes on one's eyeball, finding what appears to be a piece of silver on the beach only to subsequently discover it is a shell, a crystal appearing red because there is a red flower behind it, an object appearing yellow when we have jaundice. Dreams, though illusory, are not examples of illusory *perception* : they are excluded by the first condition, since dreams are not produced by sense-object contact. Not all nonveridical perceptual judgments are erroneous : doubtful judgments ("is this a dagger that I see before me?") are nonveridical — perceptual but not veridical because they fail the fourth requirement by not being "well-defined". At least this is so for many Naiyāyikas. But Trilocana and Vācaspati, followed by Udayana and Varadarāja, construe "non-wandering" as excluding all nonveridical judgments including doubt, and find, as we have seen, a different use for "well-defined", namely to identify propositional judgments.

We must note, first, that it is only propositional perceptual judgments which are subject to error. Nonpropositional judgments grasp the "own-nature" (*svarūpa*) of their contents, and although as we have just seen the Naiyāyika is driven to disavow that these contents are bare particulars (*svalakṣaṇa*) as the Buddhist asserts, he is not willing to abandon the claim of indubitability for nonpropositional perceptual judgments. We may be acquainted with a cow in a nonpropositional way, and *qua* cow, although as soon as this is related to the fact that the object before us shares *cowness* with other such objects, we have a propositional judgment and an occasion for error, since the proposed relation may be the wrong one.

Indeed it is precisely this misrelating which constitutes perceptual error, says the Naiyāyika. His view is usually referred to as *anyathākhyāti* and contrasted with the views of opposing schools, each view having its proper *khyāti* title. Vācaspati reviews 5 such theories known to him, his own plus 4 mistaken alternatives. The Yogācāra Buddhist holds a view called *ātmakhyāti*, according to which error results from externalizing the reports of consciousness which are, properly understood, internal. All judgments of an external world are erroneous in this view; Vācaspati understands the Yogācāra to be an idealist. A second mistaken view is that of the Mādhyamika Buddhist, who holds a view dubbed *asatkhyāti*, according to which error consists in judging something nonexistent to exist. Vācaspati understands the Mādhyamika to be a skeptic. Third, the view of the Advaita Vedāntin is called *anirvacanīyakhyāti*. According to it, when we mistake a shell for a piece of silver we are actually aware, for as long as our error persists, of a piece of silver which in some sense exists, since it is presented, but which is not real, since the judgment is false. Again the result is that all empirical judgments of perception are erroneous, since Advaita views all empirical objects as transient and thus all empirical judgments as false. Vācaspati's reply is that the notion of error being analyzed requires that an erroneous judgment be one which misleads us because it resembles a true judgment. If all perceptual judgments are false none of them could be mistaken for a true one, or at any rate no reason has been given why one perceptual judgment should mislead us while the next does not. Since no judgments of this kind are allowed as true, there quired sort of error cannot arise. The fourth and last of Vācaspati's list of mistaken views about error is the *akhyāti* theory of Prabhākara's branch of Mīmāṃsā. According to it all perceptual judgments are true per se; error arises when two such judgments are illicitly confounded, when we fail to apprehend the difference between them. Of the 4 in Vācaspati's list he is most favorably inclined toward this one. However, it fails, but only because Prabhākara insists on making the confusion a matter of failing to apprehend difference, rather than a matter of apprehending (mistakenly) an identity. For example, I think a shell is a piece of silver: Prabhākara says I fail to grasp the difference between this (shell) and a piece of silver. Vācaspati wants to know: is it that I see something at my feet and *fail to judge* that it is a shell and not a piece of silver? If so, we shall not be able to explain why I eagerly bend down, gather up the object and examine it more closely hoping it is legal tender, for *ex hypothesi* we have not made any judgment that this thing is a piece of silver. On the other hand, if

Prabhākara means that we do make a positive judgment that this (shell) is (identical with) a piece of silver, Vācaspati is happy: on this reading Prabhākara's *akhyāti* view is tantamount to the Naiyāyikas' *anyathākhyāti*.

Anyathākhyāti, the Nyāya theory, differs from each of the 4 described in the previous paragraph. Positively described, it is the view that what is grasped in erroneous perception exists (*pace* Mādhyamika) and is external (*pace* Yogācāra); furthermore (*pace* Advaita) its ontological status is no different from the objects grasped in veridical perception. What happens in erroneous perception is that an object whose proper location lies elsewhere is erroneously perceived here and now. Or again, objects whose actual properties are thus-and-so are erroneously clothed with properties which actually exist, but elsewhere. E.g., the thing at my feet, which is actually a shell, is erroneously clothed with *silverness*, a property which occurs in the real, external world but is, as it happens, not here at my feet. The Naiyāyika usually traces the erroneous mislocation of things and properties to the activity of our memory: we have experienced *silverness* veridically in the past and, because of some defect in our sensory or mental apparatus, we now attribute this remembered property to the object before us. But (*pace* Prabhākara) although the cause of error is a defect, the judgment is a full-scale, positive one in which we identify the thing as having the property in question—as opposed to the *akhyāti* theory which holds that we merely fail to discriminate them.

4. *Definite* (*vyavasāyātmaka*) : The final requirement that Gautama specifies is intended to exclude judgments of doubt. In the dusk I see an object before me and, not sure whether it is a man or a post, I form a doubting perceptual judgment. Gautama's condition is intended to exclude from the scope of veridical perceptual judgments all judgments which do not assert a proposition. Where nothing is asserted, the question of truth or falsity cannot arise; in doubting judgments nothing is asserted. Trilocana and Vācaspati point out that this requirement is implicit in the previous condition that the judgment "not wander," since they interpret that condition to exclude all judgments which are not true. Thus they reinterpret Gautama's fourth condition as a way of identifying one of the two kinds of perceptual judgments, namely the propositional variety.

So much for Gautama's definition of veridical perception. Not all subsequent Naiyāyikas accepted this definition, however; there are recurrent attempts to start all over. Bhāsarvajña, for example, defines valid perception as "correct immediate experience" (*samyagaparokṣa-anubhava*). This is reflected in Varadarāja's "what is pervaded by

immediacy and validity." The notion of "immediacy" (*aparokṣa*) gains currency later in the tradition. Udayana defines an immediate knowledge as one which is not born from another knowledge. The attractiveness of Bhāsarvajña's line of definition is that it reflects the primacy of experience, without insisting that the experience be sensory. This is important for the later theistic Nyāya: whereas Gautama's definition makes a frank appeal to the senses as the only source of perception, theistic Naiyāyikas realized this would either result in God's not having perceptions or else in the necessity of saddling Him with sense organs.

V. *Unusual Forms of Perception*

We have noted already that yogis were believed to have unusual powers, among them the ability to perceive things not ordinarily perceptible by human beings. Kaṇāda mentions certain classes of sages and perfected beings who have these powers. There is speculation among our writers as to how they manage this unusual yogic perception. Praśastapāda divides yogis into two varieties, one kind able to perceive validly without using external sense organs, the other needing the use of those organs. The former kind of yogic perception is carried out by the internal organ alone.

Unusual kinds of perception are not limited to yogis, however. Vātsyāyana mentions a kind of immediate awareness called *prātibha*, which we may translate as "intuition." Gopinath Kaviraj suggests that it is equivalent to what Buddhists and others refer to as *prajñā*, "insight."[15] Intuition is a source of knowledge for ordinary folk on occasion, for sages regularly, so Praśastapāda tells us. Examples of intuitive knowledge occur when, for example, we know immediately that a certain event will happen in the near future (say, our long-lost brother will turn up) or that someone near and dear has died in a far away place. Jayanta explicitly classifies intuition as a kind of perception and accepts it as valid. He carefully distinguishes it from yogic perception.

In Navya-nyāya times we find a well-defined tradition according to which there are 3 types of "extraordinary" (*alaukika*) perception. One of these is (1) yogic perception. The others are (2) perception of a universal characterizing all members of a class one of whose members is presented (*sāmānyalakṣaṇapratyakṣa*), and (3) perception of the features of a thing which was known previously or elsewhere as here and now presented (*jñānalakṣaṇapratyakṣa*). Gopinath Kaviraj states that "before the days of *Tattvacintāmaṇi* the difference between

laukika and *alaukika sannikarṣa* was not positively declared in a Nyāya treatise."[16] However, there are passing references to these 3 types of unusual perception in our period, notably in the *Nyāyamañjarī* of Jayanta.

Jayanta clearly describes the *sāmānyalakṣaṇa* kind of unusual perception, explaining that it is accomplished through the internal organ. He even alludes to the doctrine as common Nyāya. It is important for the Naiyāyika in order to explain how we arrive at universal judgments such as "all smoky things are fiery." It will be recalled that concomitance is generally held to be a matter of a relation among universal properties. The problem remains : granted that, say, the property of being smoky is pervaded by that of being fiery, how do we know that all smoky things are fiery ? That is, though we have not been presented with all smoky things, we are able to assert a true judgment about that class, as well as to have desires and expectations about the various unobserved members of the class. Since whatever inference gives us is based on relations which hold between the universals *smokiness* and *fieriness*, the source of the universal judgment in question is not inference. The Naiyāyika claims that the source is perception; we *see* the newly observed instance of a smoky thing as possessing fire, though the basis of our perception lies in the previously ascertained inference about the universals.

The second kind of unusual perception (*jñānalakṣaṇapratyakṣa*) is also mentioned by Jayanta. Here the problem is in many ways quite parallel to the previous kind of unusual perception. We see this as silver, though it really is not; granted, we can explain why it is that we are prone to infer the presence of *silverness* from the perception of *silveriness* together with presumed defects in our sensory or mental apparatus, but this still does not explain how we come to *see* this as silver, any more than the pervasion between smokiness and fieriness could explain how we come to see a newly found smoky thing as fiery. The answer, again, is that "this is silver" (when it is not) is a genuine (though false) perceptual judgment, mediated in this case by our previous judgment about a validly observed piece of silver.

It becomes reasonably clear, upon surveillance of the literature, that extraordinary perception, though perhaps not systematically distinguished until Gaṅgeśa, was well known and regularly appealed to by our philosophers. Thakur, for example, reports that Śrīharṣa, the Advaitin, attributes the doctrine of *sāmānyalakṣaṇa* perception to Vācaspati Miśra, although Vācaspati had a different term for it (*sarvopasaṃhārakavyāpti*).[17] Vallabha discusses the same doctrine explicitly.

VI. *Doubt and Indefinite Judgment*

Besides erroneous perception, doubt and *tarka* are classified in the chart on p. 154 as presentative judgments which are not true. We shall have occasion to discuss *tarka* in connection with inference in the next chapter; here I briefly summarize what our philosophers have to say about judgments expressing doubt or uncertainty about things.

Doubting judgments are contrasted with judgments which give "ascertainment" (*nirṇaya*). We must also note a kind of judgment called "indefinite" or "uncertain" (*anadhyavasāya*), which may or may not be the same as doubting judgments.

Kaṇāda gives an analysis of doubting judgments as arising from the concurrence of 3 conditions : (1) perception of something as being of a general kind; (2) failure to perceive its differentiating characteristics; (3) recollection of those differentiating characteristics. Praśastapāda interprets this to mean that we are in doubt when (1) we perceive that *x* and *y* have a common set of general characteristics, (2) we remember that *x* has different specific properties than *y* does, but (3) we cannot see clearly enough (or infer cogently enough) to tell whether the object of our awareness is *x* or *y*, this obscurity stemming from *adharma*. He distinguishes doubting judgments from indefinite ones—the latter, he says, occur when we do not know the word for a thing and thus describe it in vague terms. Vyomaśiva expands on this last point—doubt is always about objects of a kind we are already acquainted with, while indefinite judgments may also be about objects of a kind we never before confronted. Later writers relax the distinction between doubting and indefinite judgments, however. Vallabha has it that the only difference is that indefinite judgments have the form of a question —"is this a dagger I see before me ?" —while doubting judgments have the form of a disjunction— "this is either a dagger or a mirage." And Śivāditya merely includes indefinite judgments as a subclass within doubting ones.

Gautama treats doubt in several places, but it is not clear from the text what his conception is. Apparently it was not clear to his commentators either, for his ambiguous words get different interpretations at their hands. Vātsyāyana finds that Gautama classifies doubt into 5 varieties : (1) where we wonder whether the thing in the dusk is a post or a man, since posts and men share a certain general shape (which we perceive) but differ in other characteristics (which, because of the gloom, we do not perceive); (2) where we wonder, e.g., about sound whether it is a substance or a quality, since although we kuow some of the *differentia* of each what we know of sound is not

sufficient to determine which of the additional *differentia* it satisfies; (3) where two parties make contradicting claims, each one unsupported; (4) where we are not sure, with respect to a thing perceived, what its proper classification is ("is it a dagger or a mirage?"); (5) where we have the same doubts about a thing's classification, but the thing is not perceived.

Udyotakara understands the very same passage of Gautama's as saying something entirely different. Where Vātsyāyana thinks Gautama is giving a list of varieties of doubt, Uddyotakara thinks he is explaining the conditions under which doubt occurs. Of such conditions he claims that Gautama finds 3. Doubt occurs when (1) we fail to know the *differentia* of *x*; (2) we perceive or infer a character held in common by *x* and *y*; and (3) we do not have a clear perceptual knowledge that what we see (or fail to see) is *x*, and not *y*. Uddyotakara not only dismisses Vātsyāyana's interpretation of Gautama's *sūtra* : he finds fault with 2 of the 5 varieties of doubt which Vātsyāyana distinguishes. The culprits are Vātsyāyana's numbers 4 and 5. According to Uddyotakara, in every judgment, true or not true, some properties are more clearly presented than others. Vātsyāyana seems to think that this indicates the presence of doubt ipso facto but, says Uddyotakara, if it were so we could never become clear about something we had initially doubted, since even the clarifying judgment answers to the descriptions given under numbers 4 and 5 of Vātsyāyana's list. Uddyotakara appears to think that Vātsyāyana finds any judgment about a thing to be doubtful if it fails to discriminate that thing from everything else, which is surely too much to ask.

Bhāsarvajña, however, accepts Vātsyāyana's interpretation and his 5 kinds. He also mentions indefinite knowledge, making it a kind of doubt. Praśastapāda attacks Vātsyāyana's third kind, the kind of doubt stemming from two parties holding contradictory and equally evidenced beliefs. His reason for disallowing this kind of doubt is that no judgment could be formulated under the conditions described, since doubt always arises about a thing and involves perception and memory of characteristics which that thing has, and since furthermore of any two contradictory propositions there is scriptural authority favorable to one and not to the other ! Udayana, on the other hand, unmoved by Praśastapāda's reasoning, allows doubt to arise from contradictory beliefs, and asserts that it is precisely for such doubts that the procedures of *tarka* are useful.

Udayana is also suggestive concerning the importance of the topic of doubt and the necessity of being precise about its nature. It is

because of the Cārvāka materialist that doubt must be carefully investigated. The Cārvāka wants to say in effect that every judgment is one of doubt, and this the Naiyāyika cannot allow. Indeed, the whole demonstration that there are *pramāṇas* (ways of gaining knowledge) is directed to silencing the skeptical Cārvāka. As is the way with skeptics, these Cārvākas resort to the device of setting such high standards for knowledge that no empirical judgments can in the nature of the case satisfy those standards, from which it follows that there is no empirical knowledge. Part of the answer to this skeptical critique is to make out that, as we have seen, one does not have to know everything about a thing before one can formulate a judgment which qualifies as knowledge, and this implies that mere inability to answer any question whatsoever about a thing is not sufficient to prove that all one's judgments about that thing are judgments of doubt. The standards for knowledge thus lowered, all that remains is to show that there are sources of valid knowledge.

VII. *Memory and Recognition*

It will be recalled that in defining perception special efforts are put forth to distinguish perception, which is taken to be an instrument of veridical knowing, from memory, which is not. Just why memory is not to be counted as an instrument of veridical knowledge is not altogether agreed upon by our philosophers, however. In fact, memory is regularly veridical, just as perception is, although neither is counted as incorrigible. Praśastapāda says memory is a form of true knowledge (*vidyā*), but nevertheless does not classify memory as a *pramāṇa*. Jayanta explains that memory is not to be counted as true knowledge (*pramā*) because its content is not among its causal factors: when we remember *x* it is the trace produced by *x*, and not *x* itself, which is the crucial causal factor. He notes that the Mīmāṃsakas offer a different theory to exclude memory, namely that since all true judgments have as content objects not previously known, and since memory has as *its* content an object previously known, memory is not true.

Jayanta, in fact, distinguishes two properties: validity and truth. Memory, he says, sometimes may be true, but it is not valid, since it does not always represent the object "as it is." Udayana agrees. Memory, according to Udayana, never represents its object correctly, since it always leaves out some of the properties previously noted or adds others not initially present. An objector may say that the object should be taken to be the thing divested of its qualities—since,

for example, if I perceive *x* at *t* and then remember at *t*+1 year the *x* I saw a year ago, my memory attributes the property of *being past* to *x* as I knew it then. Udayana's answer is that if this were so we could "remember" objects which we could not have perceived.

In short, the attitude of the Nyāya tradition proper—that is, of the commentators on the *Nyāyasūtras* and their commentators in turn—is that judgments of memory are not veridical, and thus that memory is not an instrument of true knowledge. The Vaiśeṣika tradition is different. Praśastapāda classifies memory as one of several varieties of valid knowledge (*vidyā*). Śrīdhara explains that, despite this, memory is not an instrument of valid knowledge because it is parasitic upon perception and inference, which initially make us acquainted with the objects we can subsequently remember. Jayanta, he says, was just wrong when he claimed that memory judgments were untrue because their objects were not among their causal factors; if that were a good reason for calling judgments untrue, says Śrīdhara, then inferences could never yield truth, since they are not caused by their objects. Both inference and memory judgments are true, but memory, unlike inference, represents rather than presents its content; thus inference, but not memory, deserves the title of an instrument of knowledge.

Vallabha understandably finds difficulty in reconciling these divergent traditions. He tends to accept the Vaiśeṣika tradition of Praśastapāda and Śrīdhara in the main, but when it comes to explaining why memory is not a *pramāṇa* the best he can do is to refer us to the authority of the authors of the *sūtras* who, he says, established the conventions covering the proper application of the term *pramāṇa*.

Just what can be the content of a memory judgment? Clearly, the objects of previous perceptual cognitions may be remembered. Indeed, since memory is produced merely from the contact between the self and internal organ when activated by a trace, we can remember any object which is capable of producing a trace. How are traces produced? By judgments. The trace is not of the judgment, but of the content of the judgment, its object. This object may happen to be itself a judgment, but if it is remembered it must be because a trace was produced by a judgment about that judgment which is remembered—or else the Naiyāyika must adopt the doctrine of the self-illumination of judgments, which as we have seen they reject.

Recognition (*pratyabhijñā*) is different from memory, since in it we judge with respect to a presented object that it is the object we were previously acquainted with. According to Jayanta it is just a particular variety of perception. This view seems to be generally

accepted in the system. The major competition in this matter is the view of the Buddhist, who thinks that recognition is a complex judgment composed of two kinds of simpler judgment, one perceptual, the other a memory judgment. From the Buddhist's standpoint such a composite judgment is always in error, since reality is momentary and thus cannot be validly recognized. In the light of this fact the Naiyāyikas' concern to establish the validity of recognition is understandable. He wishes to establish the continuity of objects.

Udayana is notable in his use of the argument that, since recognition is a fact, objects are continuous. It is surprising that Uddyotakara seems to miss the point by admitting that recognition does not necessitate the assumption that its object is a continuant.

VIII. *Comparison* (*Upamāna*)

We have moved by now to a discussion of the instruments of knowledge, which they are and what are their natures. According to classical Vaiśeṣika doctrine there are only 2 instruments—perception and inference. According to Nyāya doctrine there are 4. The difference is not as serious as might be thought, however, since the Vaiśeṣika includes the two missing instruments under inference.

The Naiyāyika's 4 instruments are perception, inference, comparison, and verbal authority. We shall take up the topic of inference, which is the specialty of the system, in the following chapter. In the remainder of this chapter I review Nyāya thought on the last 2 instruments and briefly summarize the reasons why our philosophers refused to admit any additional instruments.

The stock case of a judgment of comparison occurs when a man who has seen a cow is told that in another part of the country there is an animal called a *gavaya* which is similar to the cow he is acquainted with. Sure enough, when travelling in that other part of the country he runs across a beast which is similar to a cow and judges, as a result, "this must be a *gavaya*."

There are quite a few different theories about precisely what kind of a judgment this resulting judgment is. Gautama argued that it is *sui generis*, being neither a perception nor an inference. The reason it is not perceptual is that its content includes a reference to linguistic usage (of the word *gavaya*), and usage cannot be perceived. And it is not inference, he says, since inference gives us knowledge about things which can be verified through perception. These considerations by themselves failed to convince many subsequent writers, however,

Vātsyāyana analyzes this kind of judgment as having for its cause (1) the memory of the conventional usage conveyed to him earlier together with (2) perception of the animal. Uddyotakara disagrees: for him the cause of a judgment of comparison involves (1) the knowledge of the similarity between cow and *gavaya* conveyed in the earlier discussion through the words of another, plus (2) the perception of the similarity of this animal now presented to cows previously seen. Jayanta defends Vātsyāyana and attacks Uddyotakara: we cannot perceive similarity since *ex hypothesi* the things whose similarity is supposed to be perceived are not both present. In fact, the similarity is learned directly from the verbal authority of the speaker in the original discussion, and as Vātsyāyana holds, it is the memory of this similarity which is the first of the two conditions. Presumably Praśastapāda has a similar account in mind : he classifies comparison as a species of verbal authority, which in turn he classifies as a kind of inference.

Bhāsarvajña's discussion of this instrument is very peculiar. His considered conclusion is that comparison is not an instrument of knowledge in addition to the others, contrary to what Gautama maintained. Yet he struggles to make it seem that he is not saying anything in conflict with the view of the *sūtrakāra*. His apologies seem to have taken no one in. More unusual still, he has no firm alternative to offer. He details at least two accounts of judgments of comparison. According to one, such judgments fall under the rubric of verbal authority, as Praśastapāda had proposed. According to the other, a comparative judgment is a sort of memory of a previous nonpropositional judgment which makes the subsequent confrontation of the animal (which had been known only indistinctly before from the description) a vivid propositional one. Bhāsarvajña and his followers do not, as Vātsyāyana and others do, think that a comparative judgment reports facts about conventions of usage. Such reports are made through judgments deriving from the instrument called verbal authority. Varadarāja spells this latter view out more fully: we get an indistinct knowledge of a *gavaya* from the words of our earlier acquaintance, indistinct since we are not yet acquainted with any *denotata* of the new word in his speech. Then when we confront the animal later we recognize this animal as that animal we knew indistinctly before. Thus the judgment is a kind of recognition, and so presumably to be classified under perception.

Udayana also argues against Uddyotakara's view that comparison grasps as its object the similarity between cow and *gavaya*. His argument is that if that instrument can grasp similarity it can grasp

dissimilarity too—presumably on analogy with the well-accepted doctrine that perception can grasp the absence as well as the presence of objects. Varadarāja seems to have accepted the implications of this argument of Udayana's and incorporated it into a view of the type Udayana intended combating with it. Varadarāja classifies judgments of comparison into 3 kinds : (1) judgments through similarity (*gavaya* from cow); (2) judgments through dissimilarity (from cow to horse); (3) judgments deriving from recognition of the same property in two different things i.e., the process of identifying a thing as of a kind.

IX. *Verbal Authority* (*Śabda*)

The fourth instrument in Gautama's list is explained by him as being constituted by the teaching of a worthy person (*āpta*)—in short, an authority. Who are authorities, and why? Vātsyāyana says that an authority is one who has direct knowledge of something and is both desirous and capable of speaking about it. He adds that authorities need not be sages, and may even be foreigners! Vācaspati goes even further, noting that an authority need not even be morally worthy: a robber, after he has taken everything one has, may provide accurate information about the way to the next town. It is evident that the Naiyāyikas, unlike Vedāntists, did not restrict authority to the scriptural sort. Nevertheless, Udayana adds, an omniscient person will naturally qualify as an authority on everything.

It should be further added that judgments derived from verbal authority are classified by Gautama into 2 kinds, (1) those where the object is seen, and (2) where the object is unseen. Clearly an authority on the second variety needs to have special powers. Furthermore, whereas the first kind of judgment can be verified by perception, the second kind cannot; thus we are fully dependent on the authority for the validity of his claim. This is viewed by our philosophers, if not exactly as an unfortunate consequence of the way the world is, at least as a consequence of it.

Kaṇāda asserts that judgments derived from verbal authority represent a variety of inference, and he is followed in this interpretation by Praśasapāda and Śrīdhara, though interestingly enough not by Vyomaśiva. Praśastapāda argues that judgments gotten from authority are inferential since they satisfy the requirements of inference—they involve perception (auditory) of sounds as well as knowledge of regular concomitance or pervasion. Gautama anticipates this criticism and answers that whereas in inference the concomitance is natural

and lawful, in verbal authority judgments the concomitance is based on man-made conventions. This reasoning apparently convinced Vyomaśiva to depart from his tradition; he accepts the difference. Śrīdhara takes the position that the concomitance in question is between the intention of the speaker and the sounds he emits when he speaks; we discern this regularity, which is as natural as anything is, and infer the truth of what he asserts. Perhaps, retorts Vācaspati, we infer the *validity* of what he says, but *what* he says is known to us through another instrument than inference. Vātsyāyana argues that in inference the concomitance in question must pertain between things both of which can be observed, while verbal authority depends on a denotation relation which may well relate a word with a type of object never perceived or even imperceptible. Jayanta has a succinct reason why verbal authority is not inference: authority operates through single words alone, while inference requires whole sentences for its operation. Inference cannot prove either that a word has the capacity to convey a meaning or that the word does in fact convey that meaning, he adds. Vallabha, on the other hand, accepts the classification of verbal authority as inference, since the use of words seems to him to presuppose previous knowledge of the relations among their meanings; the words merely cause us to recall those relationships.

A good deal of the previous paragraph will be lost on the reader until he has a chance to absorb the next chapter, on inference. Nevertheless, he will discern that among our philosophers there is a variety of views about questions pertaining to linguistic usage and its nature, a variety that must make us think of our own day and its philosophers' obsession with questions about language, questions which are reminiscent of those we have just touched upon.

X. *Pseudo-Instruments of True Knowledge*

Various other schools propose other instruments besides the 4 recognized by at least some of our philosophers. It is not that the judgments classified as deriving from such instruments by others are rejected as false by Naiyāyikas; rather, the Naiyāyika's claim is that he can accommodate each of the other "instruments" under one of the Nyāya 4 (or Vaiśeṣika 2) accepted instruments.

Thus Mīmāṃsakas, for example, find a place for an instrument they call "presumption" (*arthāpatti*). A stock example is our judgment that Caitra must be out, since he's alive and not at home. Another has to do with Devadatta, who is fat, and about whom we

conclude that he must eat at night, since he is not seen to eat in the daytime. Gautama includes presumption under inference, and this is defended by commentators on the ground that since we require knowledge of lawlike concomitances, as in recognized inferences, we have no need to distinguish this particular class of judgments.

Another supposed instrument, admitted by Mīmāṃsakas, is needed to explain the source of negative judgments. We have seen above that Naiyāyikas generally maintain that absences are perceptible; thus judgments about absences can be incorporated under the instruments of perception, inference, and the others.

Other instruments are occasionally proposed. The Paurāṇikas are said to have proposed that we need an additional instrument to validate such a judgment as "since there are 1,000 people in this crowd there are 100." The Nyāya view is that this is derivable by inference.

We shall shortly have occasion to examine a mode of reasoning called *tarka*, which operates somewhat as the kind of reasoning called "reductio ad absurdum" does. It is occasionally suggested that *tarka* is an additional instrument. Vātsyāyana controverts this suggestion on the ground that *tarka* is by itself not able to produce true judgments; it is an ancillary technique and does not by itself give us knowledge. Aparārka even says it is a kind of doubt; Śivāditya echoes this. It is said, however, that the Bhūṣaṇakāra makes *tarka* an independent category; it is difficult to know what that, if true, would indicate.

9

LOGICAL THEORY

All systems of Indian philosophy except the Cārvākas accept inference as an instrument of valid knowledge. The science of reasoning (*nyāya*) is alluded to in very early Indian texts, and the name of the Nyāya school indicates that Indian intellectuals looked to this school as the authority in matters of detail connected with logic. Not that Naiyāyikas had a corner on the subject. Most of the other systems proposed theories in the area of logic and reasoning, and some (notably Sāṃkhya) may well have antedated the Naiyāyikas on certain important points. In particular the logical theories of Buddhists of Dignāga's school were viewed by the Naiyāyikas as rivaling their own in subtlety and importance.

An extended history of Indian logic has yet to be written. Little is known of the beginnings of these reflections. Argument is indulged in in the earliest texts, the Vedas and Upanishads, and there are references in the Upanishads to a science of "dialogue," though it is unclear what this consisted of. During the Buddha's and Mahāvīra's period, argumentation was enriched. The Buddha's method of answering questions is noteworthy: asked whether a metaphysical proposition was true or not, he sometimes answered by denying that it was true, false, both, or neither; this method became the touchstone of Nāgārjuna's Mādhyamika system. Mahāvīra developed a "logic of perhaps," the so-called *syādvāda* or sevenfold predication, which made much of the different points of view from which propositions, might be taken to be true, false or possible. Some of the *suttas* of the Buddhist canon mention *tārkikas* or logicians, and a chapter of the Majjhimanikāya is called *anumānasutta*, the chapter on inference. Manu and the epics refer to logic and logicians, sometimes taking a dim view of their ways and warning the devout against them.

The specific topic of the proper form of argument (somewhat misleadingly referred to as the theory of the "syllogism" by certain writers)

can be traced back at least to the Jain writer Bhadrabāhu, who had a 10-membered argument.[1] His 10 members are different from another set which Vātsyāyana addresses himself to later on. By the time of Caraka (ca. A.D. 78), the writer on medicine, we have a 5 membered argument form. Caraka's time closely approximates Kaṇāda's and is not far before Gautama. There is also reason to believe that at this same period the Sāṃkhya philosophers knew and used a 5 membered argument form.[2]

I. *The Terminology of Inference*

Before summarizing the logical theories of our writers it will be well to arm ourselves with appropriate terminology for describing those theories.

As we have seen, *Nyāya* is used to suggest logical theory. A more specific term meaning "inference," however, is *anumāna*, which is the name for the second of the 2 Vaiśeṣika, and 4 Nyāya, instruments of knowledge. Through inference we are able to gain knowledge about things not available at the moment to perception. For example, we can come to know the cause of an occurrence by inferring on the basis of observed lawful relationships even though we failed to observe the causing event; or we can know that a certain universal qualifies a given particular because it is pervaded by another which is seen to pervade that particular. These are two samples of what comes to be called "inference for oneself" (*svārthānumāna*). A different, but equally important, use of inference is to convince others of the truth of a judgment. This is called "inference for others" (*parārthānumāna*). The adumbration of theories about inference among the Nyāya-Vaiśeṣikas largely concerned this latter role of inference.

According to our philosophers, all valid inferences-for-others can be analyzed in such a way that they can be perspicuously represented in an argument form which has 5 members and 5 terms. Each of these members has a Sanskrit name, as does each of the terms : I shall propose English equivalents for the names of the members, and abbreviations for the terms. It is easiest to grasp the roles of these members and terms by considering a stock Nyāya argument.

(1) This mountain is fire-possessing.
(2) Because it is smoke-possessing.
(3) Whatever is smoke-possessing is fire-possessing like kitchen, unlike lake.
(4) This mountain, since it possesses smoke, possesses fire.
(5) This mountain is fire-possessing.

In the Sanskrit terminology : (1) is called the *pratijñā*; it is what is put forward to be proved, and we may call it the "hypothesis"; (2) is called the *hetu* or "reason"; (3) is the *udāharaṇa* or "example" (actually it states the general principle which underlies thein ference as well as providing evidence in the form of examples which are intended to show not only that there are things which are both smoky and fiery but also that absence of smoke and of fire are concurrent); (4) the *upanaya* or "application," as its name implies, applies the property whose presence is to be proved to the subject of the inference (this mountain); finally, (5) the *nigamana* or "conclusion" asserts the hypothesis as proved.

The 5 terms are these. First, the subject of the inference, that whose property is proved, in the above argument *this mountain,* is called in Sanskrit the *pakṣa,* which we shall abbreviate as *p*. The property which is proved to qualify *p* is the *sādhya,* or *s*. In the above argument *s* is *fire-possessing*. The argument is that this mountain possesses fire because it is smoke-possessing, that is, because it is known to have another property which is related in an appropriate way to the *s*. This property is called *h*, the *hetu*. In the third member of the argument two kinds of examples are offered : one is positive, one negative. The positive example is called *sapakṣa, sp,* while the negative one is *vipakṣa, vp*. In the argument above, *kitchen* is the *sp* while *lake* is the *vp*.

Note that though I have called these last 5 things the "terms" of an inference it should not be inferred that *p, s, h, sp* and *vp* are linguistic entities, words or phrases. They are, as the Naiyāyikas see it, things and properties. I have italicized them,r ather than writing them in quotes, in order to suggest this important point. One implication we should note immediately is that an argument is not well-formed unless all 5 terms are present (with certain exceptions mentioned below), and that it is not enough to merely mouth a word or phrase to make them present—they must in fact *exist*!

Now a successful inference is one where there is the relation called "pervasion" (*vyāpti*) between *s*-ness and *h*-ness. In the illustration above, the validity of the argument as a whole depends fundamentally on the fact that *fire-possessingness* pervades *smoke-possessingness*. That pervasion is a relation among universals was emphasized quite early in the development of the system, although it is apparent that some of the early writers were unclear on the point.

The topic of inference received early attention because by proper understanding of the nature of an argument one may hope to identify the conditions under which the truth can be ascertained. Histori-

cally, it would appear that the systematic theory of inference owed a great deal to attempts by early practitioners of debate to develop fool-proof methods for winning arguments, as well as providing judges with applicable procedures for telling a winner from a loser. A remarkable feature of the *Nyāyasūtras* is the extended attention that these debating categories receive in the last book of the work.

In particular, the theory of debate has close connections with a topic at the heart of Nyāya discussions of inference, the topic of fallacies. Even by the close of our period, Naiyāyikas were just beginning to think carefully about positive formulations of the conditions sufficient and necessary to guarantee that pervasion is present, and the problem, which may be insoluble, is fundamental in much Navya-nyāya literature. Without the identification of positive conditions for pervasion, one is forced to fall back on negative procedures, that is, one is forced to rely on the identification of fallacies in distinguishing apparent pervasion from the real thing. Thus it is that in the actual assessment of arguments for validity Naiyāyikas proceed by examining the arguments for fallacies, and as a result a clear and sweeping list of types of fallacy is a prime desideratum.

II. *Nature and Function of Inference*

Kaṇāda and Gautama viewed inference primarily as a means by which we ascertain causal conditions, or sometimes the effects of known causes. Kaṇāda includes inference from contradictory qualities too. As we have seen, Naiyāyikas view inference as consisting of judgments whose referents are existing things, not, as we in the West are prone to do, as relating to words or concepts. Thus where we conceive of the validity of an inference as compatible with the failure of its members to refer or be true of anything, the Naiyāyika views nonreferential words as ill-formed and excludes them from any inference.

This fact seems to me to show that Nyāya is not concerned with "formal" logic in the way that Western logicians have characteristically been. However, this does not contradict Bochenski's view that "in India too a *formal logic* developed. That it really was a formal logic is shown by the fact that the formulae constructed by the Indian thinkers concern the fundamental questions of logic, the question of 'what follows from what.' "[3] Of course Indian logicians were interested in what follows from what. But their logic was not "formal" in a different sense : it did not have to do with abstract relations among terms, where the abstraction was from all questions of reference. A

Western logician views the inference "all animals are pigs; all pigs have wings; therefore all animals have wings" as formally valid, though unsound. The unsoundness does not in his view, detract from the logical interest of the example as instantiating a valid form of inference The Naiyāyika's view of this example is that it is a *nyāyābhāsa*, something which is only apparently an argument but really is not. It is, in short, ill-formed because its members are known to be false.

As a result, a great deal of time has been wasted, it seems to me, by writers who attempt to compare the Nyāya 5-membered inference with the Aristotelian syllogism.[4] A more fruitful comparison can perhaps be found with John Stuart Mill's canons of inductive reasoning.[5] When the Nyāya method of assessing inferences in practice is carefully studied it becomes quite apparent that the assessment of "validity" is a matter, not of comparing the inference with abstract models to see if it instantiates one of the "valid forms of inference," but rather of trying to detect subtle errors in the adducing of evidence for the constituent judgments.

It is a consequence of this view of inference as mainly inductive that the instrument of knowledge called "inference for oneself" is said by Gautama to "follow on perception." Inference is a distinct means of knowledge because it gives us knowledge about things we are not immediately acquainted with—but the things in question must be such that we could immediately be acquainted with them if the world, including ourselves, were different from what it is now. In particular, in inference for oneself we must actually perceive *h* and *p*, and we must have a memory of an observed concomitance between *s* and *h*—thus we must either be observing or have observed all 3 terms in the argument. If this condition is not satisfied we have the fallacy called "unproved terms" (*asiddha*). Uddyotakara, presumably following some earlier teacher(s)[6] introduces the notion of *liṅgaparāmarśa* as a condition which must be satisfied in addition to the ones above: his idea is that the fourth member of the argument, the "application," reports the actual perception of the *s*-pervaded *h* as residing in *p*. Uddyotakara, in opposition to Buddhists, Mīmāṃsakas, Sāṃkhyas, and Vedāntists, argues vigorously that this synthetic condition is the proximate cause of a successful inference for oneself.

But what of inference for others? Is not this, after all, formal? I use inference to convince you of something you do not know already; if you had perceived it, you would not need an argument. Thus inference for another cannot require that the hearers have perceived the terms and the pervasion and residence relations among them.

Even here, however, the Naiyāyika characteristically requires perception on the part of the person one is trying to convince, an extraordinary (*alaukika*) kind of perception, to be sure. The argument's purpose is to get the hearer to *see* that *p* possesses *s*-pervaded *h*, from which he will be able to conclude the truth of "*p* is *s*."

To return to the remark with which I began this section : Kaṇāda and Gautama viewed inference as primarily about causal relations. In the *Nyāyasūtras*, as well as in the writings of Hindu logicians of the same period representing other systems such as Sāṃkhya and Mīmāṃsā, one finds reference to a classification of inferences into 3 varieties : *pūrvavat*, *śeṣavat*, and *sāmānyatodṛṣṭa*. It is not clear what Gautama means by these 3 terms, and Vātsyāyana apparently did not understand them very well either, since he offers two distinct explications of the *sūtras* in question. This has given rise to several historical reconstructions among modern scholars.[7]

One of Vātsyāyana's interpretations makes Gautama to be distinguishing (a) inference from cause to effect (*pūrvavat*), as when we infer rain from clouds gathering; (b) inference from effect to cause (*śeṣavat*), as when we infer rain upstream from the swollen river downstream; (c) inference from general correlation (*sāmānyatodṛṣṭa*), which would cover correlations not involving the temporality of before and after. Thakur thinks Vātsyāyana's other interpretation indicates his acquaintance with Vaiśeṣika thought, since it runs along lines developed in e.g., Candramati.[8] Candramati divides inferences into *dṛṣṭa* and *adṛṣṭa*. The former is inference based on perception of a property held in common between two things; the latter is inference based on our failure to perceive the properties of one thing in another. Praśastapāda actually uses the term *sāmānyatodṛṣṭa*, but gives it a complex meaning: it is inference which occurs when two things have different universals but because of general correlation we infer the property of one from the other.

It is apparent from later writings that no one is very sure what Gautama's *sūtras* meant, and that one interpretation is as good as another, depending on one's theory. Uddyotakara has still another explanation. As he sees it, the threefold distinction being drawn may be construed as that between only-positive, only-negative, and positive-negative inferences. This distinction is an important one in the subsequent literature, as the others mentioned above are not, so let us turn to the last mentioned division and leave historical questions aside.

The distinction between only-positive, only-negative, and positive-negative inferences is this. In the stock case about smoke

and fire on the hill, set out above, it is possible to provide both positive examples (e.g., *kitchen*) and negative ones (e.g., *lake*). But Uddyotakara, criticizing Dignāga, holds that not all inferences are such that both sorts of examples can be given, and this not because of any defect in principle but because of the nature of what is the subject of the inference. Thus in the inference "this pot is nameable, because it is knowable," we cannot give a negative example, not because we are lazy, but because according to Nyāya assumptions everything whatever is both knowable and nameable. That is, *knowable* and *nameable* both have as their extension the universal class, if you will, and since a negative example has to be something which lacks both *s* and *h* it is evident that under these circumstances no such example can be provided. In such a case Uddyotakara says we have a case of only-positive (*kevalānvayin*). Likewise, in the inference "Sound is eternal, because it can be perceived by an external sense organ," if one (e.g., a Buddhist) believes that nothing is eternal one cannot in the nature of the case provide a positive example. This is, then, an "only-negative" (*kevalavyatirekin*) inference. The stock example of smoke and fire, where both examples are available, is "positive-negative" (*anvayavyatirekin*).

Uddyotakara held that all three kinds of inference were such that valid instances of them can be cited, and this view has been characteristic of Naiyāyikas since, although there have been some deviations—e.g., Jayanta seems to have rejected only-positive inferences as not valid, and Udayana appears to have had misgivings about only-negative ones. Most Naiyāyikas in our period, however, allow both as valid in principle. Indeed, the Nyāya rejection of presumption (*arthāpatti*) as an independent instrument depends on their being able to classify presumptive arguments under only-negative type inference.

III. *The Members of an Argument*

We have seen which the 5 members of a full-scale inference for others are as illustrated in the stock case of the claim that the hill is fiery because it is smoky. But (1) why are these just the members? Could not an argument be successfully couched in less? Or on the other hand, are not there additional members which have been overlooked? (2) What are the peculiar functions of each of the 5 members? And in particular, why do we need 2 members—the hypothesis and the conclusion—which apparently are identical in form and content?

First, why 5 members and not fewer? In arguments which actually appear in the course of philosophical polemics the characteristic form of an argument is briefer. It tends to be stated something as follows: "that hill has fire, because it has smoke, like a kitchen and unlike lake." This short-form argument sets out all 5 terms in their appropriate places. Why is it not sufficient, and why should we not reject the additional material in the 5 membered Nyāya argument as redundant or dispensable? Mīmāṃsakas, Advaitins, and Buddhists all consider the Nyāya argument form unnecessarily prolix.

Our philosophers labor to make a case for each of the 5 members. For example Vātsyāyana seems to have thought that in a full-scale argument all 4 of the valid instruments of knowledge come into play, and that each of the first 4 members of the argument form represent an instrument, the conclusion stating the judgment as proved by all 4 instruments in tandem. So he identifies the hypothesis as given to us through verbal testimony, the reason as being inference proper (the second of the 4 instruments), the example indicating the perceptual material, and the application representing the use of comparison.[9] I think it is safe to say that this account is pretty well ignored by later writers.

What is more plausible is that the difference between the first and last members, and also between the second and fourth members, is the difference between what Ingalls calls "ascripts" and "assertions."[10] The hypothesis ascribes *s* to *p*, whereas the conclusion asserts that *p* has *s*. The reason ascribes *h* to *p*, whereas the application asserts that *p* has *s-pervaded h*. This distinction Ingalls traces back to Vātsyāyana. It appears to be appealed to by Praśastapāda in distinguishing the hypothesis from the conclusion.

This is not quite the same as saying that the difference between the first two and the last two members is that the former merely mention their terms whereas the latter assert something about them. Śrīdhara seems to have something of this sort in mind when he says that in the reason the *h* is merely mentioned but it is not stated there that it is a property of *p*. Randle takes Śrīdhara to task here; clearly the reason does more than merely mention *h*—"that mountain has fire, because smokepossessing" makes no sense unless it is implicit that it is that mountain which possesses the smoke.[11]

A different sort of reason why the hypothesis must be differentiated from the conclusion stems from the fact that among the faults which may vitiate an inference many Naiyāyikas include cases where only *s* and *p* are involved. It is sometimes taken to be a fault in one's argument if the proposition one is trying to prove is contradicted by per-

ception. If one can see all the mountain and can see that there is no fire on it, it is a mistake to argue that it possesses fire. Or again, if one is trying to prove the truth of "my mother is barren" one is wasting one's time; but the reason one is wasting one's time has nothing to do with anything other than the contradiction between being a mother and being barren. Now since these faults cannot be classified as fallacies of the *h*, the *sp* or the *vp*, and since the conclusion asserts a proposition on the basis of its nonfallaciousness, in order to test the argument for these sorts of fallacies we have to formulate the proposition which it is intended to prove for the purposes of testing it for contradictoriness. Such, one might suppose, may have been part of Praśastapāda's rationale in justifying the hypothesis as a separate member. Others, notably Uddyotakara, deny that these are faults, or else classify them under fallacies of the reason or examples. They, therefore, must appeal to different reasons for distinguishing the hypothesis as a member.

Uddyotakara reminds us that the hypothesis is not, as we Westerners are prone to think, a judgment or statement but rather the complex object *p accompanied by s*. What we have been calling fallacies or faults are in fact, literally, in Sanskrit called *ābhāsa*—"appearances (of something as what it is not)." Thus the hypothesis, since it is an object, cannot be fallacious, although one may take something which appears to be an object (but is not) to be one. It follows that a "self-contradictory hypothesis" is a kind of category-mistake; if something is a hypothesis it cannot be self-contradictory (since objects can not be self-contradictory), and if something is self-contradictory it cannot be a hypothesis, not being that kind of thing. We have, then, a fundamental cleavage here between the Vaiśeṣikas Praśastapāda, Vyomaśiva, and Śrīdhara on the one hand, and Naiyāyikas such as Uddyotakara on the other, about the nature and function of the members of an inference. The Vaiśeṣikas take these members to be judgments or propositions, the Naiyāyikas take them to be objects which the corresponding judgments are about.

Very well, then, we need at least 5 members, say the Naiyāyikas and Vaiśeṣikas. But why, let us ask next, only 5? Vātsyāyana mentions 5 additional members that some older philosophers had included—the desire to know, doubt about the truth of the hypothesis, the possibility of getting a solution to the question, the purpose of the inquiry, and the resolution of the doubt. Recent scholarship suggests that a 10 membered argument form was espoused by Sāṃkhya; just these 10, in fact, are apparently found in the *Yuktidīpikā*.[12] Vātsyāyana's attitude toward these added entries is that they are

properly cited as psychological conditions and/or stages in inference for oneself but that they are out of place in a list of the steps required for inference for others. Udayana expatiates: the reason why the additional 5 members are out of place is that although their presence assists inference to take place they do not need to be known and understood by the person to whom the argument is addressed, while the approved 5 members must be appreciated in order that the argument succeed.

A good deal of discussion is occasioned over the function of the fourth member, the application. A question which troubled many of our philosophers was this : since everything has a cause, and since an inference issues (when successful) in the establishment of a conclusion, a key to understanding inference is to know, not merely what the steps are but what is the essential cause of the successful demonstration. What, then, asked our philosophers, is the essential cause of a successful demonstration ?

Now, the conclusion of our stock inference is "this mountain possesses fire." The Buddhists thought that the essential cause for the knowledge of this fact on the part of the person to whom the demonstration is addressed is just the realization that this mountain has smoke, the information set forth in the second step. (Of course in Buddhism's view there are no more steps !) Most Naiyāyikas would agree that the second member sets forth this fact (technically referred to as *pakṣadharmatā*), but many would not agree that the knowledge of this fact on the part of the person being convinced is the essential, or at least the last crucial, step in the process. Uddyotakara in particular champions the fourth step as that which sets forth a relationship which is the most essential and proximate cause of success, a relationship which he calls *liṅgaparāmarśa*. This relationship is that which holds between *p* and *s*-pervaded *h*, a relationship of qualification. As emphasized before, Uddyotakara is careful to insist that the relationship itself is not judgmental; it is a fact of nature, and it is this fact which is the cause of the addressee's correct judgment that *p* has *s*.

Śrīdhara, on the other hand, says that the Vaiśeṣika view is different from Uddyotakara's, that the fourth member has the function of conveying the *pakṣadharmatā*. He can say this because, we will recall, he holds the second member merely to mention the *h*, not to ascribe it to *p*. Randle argues that in fact Śrīdhara identifies *pakṣadharmatā* with *liṅgaparāmarśa*, as they are both now associated with the fourth member.[13]

These subtleties go beyond what is said by the authors of the *sūtras* and their initial commentators (Vātsyāyana and Praśastapāda).

These oldest writers apparently thought of the fourth member as merely arguing by analogy from the fact that in a kitchen one finds both *s* and *h* to the fact that on this mountain one finds both *s* and *h*, coupled with the fact, established in the third member, that this mountain is an instance of a general concomitance between *h* and *s* as instanced by the negative example, *lake*. In other words, the oldest writers treated the fourth member merely as the particular instantiation of the general relation; they do not raise the question as to which member states the most essential or proximate cause of successful inference. It is probable that they did not distinguish clearly the notion of a member as a linguistic or epistemic item — a judgment or statement—from that of a member as a complex fact about which we form judgments or make statements.

It is Uddyotakara's care in distinguishing these that leads him to emphasize the role of *liṅgaparāmarśa*. As he sees it, it is not our judgments which make inferences successful but the facts themselves; thus in particular it is not the judgments that *h* resides in *p* and that *s* pervades *h* that cause a successful inference, but only the complex fact of *p*'s possessing *s*-pervaded *h* which causes it. It is particularly the Buddhists that Uddyotakara opposes. Buddhist logicians such as Dignāga, since they do not admit objects independent of knowledge, must perforce view inferences as constituted of judgments, and more particularly they must trace the causes of success in inference not to facts but to judgments. Uddyotakara is cleverly forcing the Buddhists to see what he believes to be the shortcomings of an idealist theory of knowledge and inference.

IV. *Pakṣa and Sādhya*

In the case of the terms, there is no real disagreement among the schools about their number, but there is some discussion over just what exactly the terms are, i.e., what constitutes a *p*, an *h*, or an *s*, or one of the examples.

One problem about reading the earlier writings in the school on these topics is that the terms *pakṣa* and *sādhya* were used interchangeably. The reason for this, apparently, is that the term *pakṣa* is found frequently as an alternative way of designating the first member or hypothesis, and apparently the term *sādhya* was used indiscriminately, sometimes to mean the subject of the hypothesis, sometimes to mean its predicate. Tucci[14] points to a passage in the Buddhist work *Nyāyapraveśa* in which the author explains that according to the older masters of logic the argument form has two sections: (1) the *sādhya*,

including both its *dharmin* (a thing which has a property) and its *dharma* (the property the thing has); (2) the *sādhana*, which comprised the first 3 members of the argument form discussed above. The idea apparently was that the first section gives us what is to be proved, and the second produces the proof. According to Tucci this tradition is followed by Asaṅga and Vasubandhu, but was rejected by Dignāga and Dharmakīrti in favor of a distinction between the hypothesis, called by them the *pakṣa* or *sādhya*, and the reason plus the examples, called the *sādhana* or proof. It took a bit of doing for the Naiyāyikas to evolve a consistent terminology, since they were addressing themselves to Buddhists whose terminology was not at all clear and who tended to analyze the first member differently than the Naiyāyikas did.

Just what is it that one is attempting to prove in the stock argument? When one says "this mountain has fire" how should we analyze what this statement is about? This question created controversy between Nyāya and Buddhism, and for that matter among Naiyāyikas themselves.[15] Vātsyāyana starts us off: he says that what is being inferred is *fire*. But both Dignāga and Uddyotakara point out that one does not infer fire from smoke, or even fieriness from smokiness, but rather one infers from the fact that a place has smoke that it has fire. It is the relation between smoke and fire that makes the inference possible, but the inference is to a particular possessing ^ property, not merely to the property alone.

But the Buddhists are not very happy with the notion that in "this mountain has fire" we are referring to a universal in a particular. Dignāga therefore espouses the view that what is being proved in the inference is that the place from which the smoke is issuing is a fire-possessing place; the subject of the argument is a particular place on the mountain, and the property of fire-possession is being attributed to that place. Uddyotakara controverts this, it is clear; just what his argument is is not so clear. Vācaspati Miśra appears to think that Uddyotakara's point is that the inference cannot be about that place, since we do not see that place, it being hidden behind the hill. After all, if we could see the place we could see the fire and would not need inference. Randle discusses the passage at length and concludes that Vācaspati's understanding is probably mistaken, and that what Uddyotakara is complaining about is that Dignāga wants to infer from the general presence of smoke to the occurrence of fire at some specific spot, which he could only do if he adduced as his reason that the smoke qualified that particular spot — and that is not the evidence that is given!

Uddyotakara's own analysis of the hypothesis is that we are inferring, about this particular smoke that we see over the hill, that it is fiery, i.e., that it is accompanied by fire somewhere nearby on the hill. On his view, then, the *p* is *this smoke* and the *s* is *fire-possessing*; the mountain disappears as a term in the argument because, as Randle puts it, it is an "accidental *dharmin*." As we shall see, this analysis leads Uddyotakara to have grave suspicions about the crucial relation of pervasion, which will be discussed shortly.

Generally, the *p* is identified, e.g., by Vātsyāyana, as the thing about which we are doubtful as to whether it does or does not possess the *s*. For one thing, it must not be an empty class. Udayana explicitly points this out, and it is generally assumed. Jayanta adds that it must not overlap the *sp*, and that it must not be identical with the *s*. In general, we may say at this point, all the terms of a well-formed argument must be different. Śrīdhara adds still another requirement: the *p* must not be such that it can have mutually contradictory properties—of the two entities *s* and *absence of s* one or the other but not both must be attributable to *p*. Mīmāṃsakas and others suggest a further requirement intended to rule out "straw man" arguments: *s* must be hitherto unproved to reside in *p*. But Uddyotakara rejects this as too stringent; all that is needed to make an inference have point is that someone claims that *s* resides in *p*.

V. *The Hetu Term: Its Nature and Requirements*

In many ways the heart of early discussions of successful inference lies in their treatment of the *h* and when one has a "real" *h* as opposed to only an apparent one. There is more than one way of approaching the requirements for a successful *h*. On the one hand one may attempt to provide conditions necessary and sufficient for a putative *h*'s being a real one. On the other one may set out to specify (exhaustively if he thinks himself able) the kinds of faults discovery of which convicts a putative *h* of being only an apparent one—a *hetvābhāsa*. We shall deal with each of these approaches in turn.

A. *Necessary and Sufficient Conditions for h*: One of the most famous theories in Indian philosophy, and probably the best known to historians of Indian logic, is that of the "three fold mark" (*trairūpya*) of the *hetu*. The theory is especially associated with the name of Dignāga, but in some form it antedates him considerably. The reason for the association with Dignāga is that he seems to have radically reinterpreted the formula which constitutes the "threefold mark," This formula runs as follows:

(1) the p must fall completely within the h;
(2) the sp must occur partially or completely within the h;
(3) the vp must occur outside of the h.

Unfortunately, this formula as given is ambiguous, and the history of the development of the theory of pervasion is a history of the successive reconstruing of the second and third requirements in the formula.

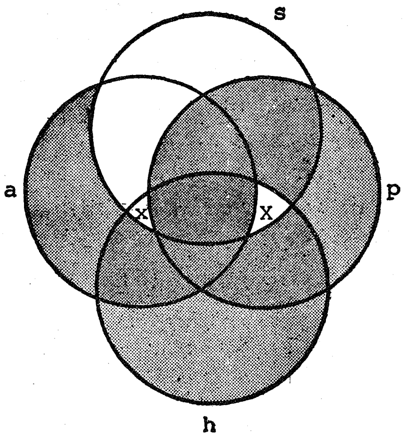
Stage One: As Vidyābhūṣaṇa asserts, "an example before the time of Dignāga served as a mere familiar case which was cited to help the understanding of the listener."[16] In the first stage of development requirement (2) of the threefold mark was taken to mean that the sp constituted some class or other whose members all share the property of possessing fire, and that at least one of those members also has the property of possessing smoke. To use a Boolean procedure for symbolizing this, (2) required that $ash \neq 0$ (where $a = sp$). Requirement (3), likewise, was construed to mean that the vp consists of some class or other whose members all share the property of not possessing fire, and that none of those members have the property of possessing smoke. Thus (3) may be formulated for this stage as $vsh = 0$ (where $v = vp$). Requirement (1) is relatively unambiguous; it states that $p\bar{h} = 0$.

It is important to note carefully the definition of sp and vp set forth in this stage, as well as two features of an inference as conceived here. The first feature is this : that satisfaction of the three requirements conjointly does not suffice to entail the conclusion. The situation here is rather that one giving an argument is citing examples to suggest the plausibility of his hypothesis to a listener; we are considering a moment in discussion where one side claims something to be the case and in order to illustrate what he means, as well as to show that his claim is not altogether unreasonable, he provides examples. The second feature to note is this : requirements (2) and (3) are independent of each other. It is possible to satisfy one without satisfying the other.

Stage Two : In this stage the understanding of requirement (3) undergoes a distinct change, while the other two requirements are interpreted as before. In Stage One the vp was taken to be some particular class (e.g., the class of lakes). On the understanding of the second stage the vp is to be construed as the class of all fireless things. Requirement (3) now is taken to state that $h\bar{s} = 0$, that is, that the h is completely within the s.

This is a radical change, for it is now the case, where it was not before, that if all three requirements are satisfied the conclusion is

entailed, and we have in (1)—(3) the necessary and sufficient conditions for a successful inference. To see this we may construct a diagram.



TO PROVE: $p\bar{s} = 0$

ASSUME: $p \neq 0$
$s \neq 0$
$h \neq 0$
$p\underline{a} = 0$
$a\bar{s} = 0$

REQUIREMENTS: (1) $p\bar{h} = 0$
(2) $as\underline{h} \neq 0$
(3) $h\bar{s} = 0$

It will be seen from the diagram that the *p* falls completely within *s*, which is the conclusion to be proved. However, the stock example of *lake* as *vp* will no longer do. For *lakes* is not the class of everything which lacks the *s*-property *fieriness*. In Stage Two, then, interest has swung from the giving of evidence suggestive of lawfulness to the actual assertion of lawful connection between smokiness and fieriness, a connection which comes to be known as "pervasion." In Stage Two, while *sp* still serves as positive evidence of concomitance between *h* and *s*, *vp* is no longer viewed as an example but rather as the complement of *s*. Requirements (2) and (3) on this reading have completely different roles: whereas requirement (2) involves giving evidence for concomitance by citing a particular case instantiating both *h* and *s*, requirement (3) asks us to assent to a universal proposition, "all *h* things are *s* things" ("all smoky things are fiery things") but does not involve the production of specific evidence.

Nevertheless the 2 requirements are still independent. One can find an instance satisfying requirement (2) without feeling able to assert pervasion of *h* by *s*, and likewise one might feel inclined to assert pervasion without being able to come up with an actual instance of a thing which shares the two properties. It is evident, though, that Stage Two is a halfway house, since if one sincerely believes that

requirement (3) is satisfied, that pervasion does indeed hold, then he will have no doubt that an instance of concomitance can be found, even though he might not be imaginative enough to come up with one immediately upon request. So we are led to a third stage.

Stage Three : Here requirements (1) and (3) are understood as in Stage Two : the change is in requirement (2). In fact, in this Stage requirements (2) and (3) come to the same thing; for the *sp* is now construed as consisting of the class of all things which have the *s-property* except the *p* itself. Requirement (2) now says that the members of *h*, smoky things, must only occur in the *sp*, which means now the class of fiery things. Thus requirement (2) must be stated thus : $h\bar{s}=0$, which was precisely the way we found requirement (3) to read as well in Stage Two.

In this Stage not only are requirements (2) and (3) equivalent, but it follows that one of them is unnecessary. Requirement (1) together with either one or the other of the other two is sufficient to entail the conclusion.

The three Stages I have just identified can be associated with Buddhist logicians. Stage One presumably antedates Dignāga. Just who was responsible for Stage Two is not entirely clear. Vidyābhūṣaṇa[17] seems to have thought it came in with Asaṅga, but Tucci[18] finds no trace of the *trairūpya* in Asaṅga. In any case it is likely that it was Dignāga's position, although this is extremely hard to ascertain, mainly because of the difficulty of maintaining the position of Stage Two without perforce being led on to Stage Three. Stage Three is explicitly and unmistakably formulated by Dharmakīrti in the *Nyāyabindu*.[19] Stcherbatsky's[20] puzzlement over the *trairūpya* stemmed from his difficulty in explaining adequately why Dharmakīrti should promulgate as a threefold mark a formula in which one of the requirements is redundant and unnecessary. He was not the firstt o have this difficulty; Dharmakīrti's commentators, such as Dharmottara, shared it.[21]

It is especially instructive to note how in the transition from Stage One to Stage Two attention shifts from what is the case to what is asserted. I remarked earlier that Uddyotakara, especially, is sensitive to Buddhism's tendency to confuse things with judgments about them. In turning the pattern of inference into a formal relation among judgments, the Buddhists discovered something approximating the kind of thing which Western logicians have studied for centuries. It was their idealist proclivities which enabled them to interpret the argument pattern thus without shuddering. Naiyāyikas resisted the transition from Stage One to Stage Two. They continued

to interpret the *sp* as a class whose members share the *s*-property and some of whose members (though not necessarily all) have the *h*-property, and they refused to take the *vp* as the complement of *s*. As empiricists and realists they viewed the examples as providing evidence for pervasion, but they generally admit that the statement of pervasion is always fallible—that subsequent examination may show that what seemed to be concomitance between *h* and *s* is not really such. Their attention remained directed toward the evidence, where the Buddhists tended to be drawn off to study formal relationships among judgments abstracted from their relationship with the facts. At least I think it fair to say a Naiyāyika would claim this to be so.

We find the threefold mark cited by most of our authors as necessary conditions for a valid *h*. Jayanta adds 2 more requirements to the 3 of Stage One above. They are (4) that *h*'s residence in *p* not be refutable by one of the valid instruments, and (5) that *h* not be such that though it satisfies requirements (2) and (3) with respect to *s* it also satisfies them with respect to *s*'s complement. According to Matilal[22] the Vaiśesika authors count (4) as a requirement on *p* rather than on *h*, although Vyomaśiva at any rate reports with approval the fivefold mark of "Nyāya theorists."

B. *Fallacies of the Hetu* : If one despairs of finding any set of conditions on the *h* necessary and sufficient to insure validity of the inference in question, the alternative is to list and classify as many as one can of apparent *hetus* which are not real *hetus*, i.e., which do not produce a valid inference.

It is not hard to show why despair may be an appropriate attitude to adopt toward the prospect of finding positive conditions for validity. There are indefinite ways in which an inference which has the look of validity about it fails, and only a small number of these ways constitute violations of the 5 conditions Jayanta accepts. For one thing, participants in an argument are extremely likely to disagree on matters which are presupposed in the very formulation of the hypothesis, or reason, or examples. In such cases the argument may pass all 5 conditions from one party's point of view but not from the others, so that although it convinces the speaker it fails to convince the hearer. Worse yet, one or both parties may be confused or uncertain about key aspects of the terms, in which case although conviction may be produced the argument is invalid (though possibly temporarily successful !). Then there is the matter of being well-formed semantically and pragmatically (supposing for the moment that it passes muster syntactically). I.e., if one or more of the terms fails to denote anything whatsoever, or if there is a category-mistake involved in relating

one thing to another, the argument is not well-formed semantically; and if the terms are equivocal in context, or if the members are asserted at widely separate times, the argument is not well-formed pragmatically or contextually. In Western logic textbooks one sometimes finds discussions of "informal fallacies," arguments which appear formally satisfactory but which misuse the language in some fashion or other. It would be a very unsophisticated logician who thought he could give an exhaustive classification of all the possible faults of this sort that can infect an argument.

When one turns to consider what Indian logicians have to say about fallacies of the *hetu*, one is struck by the lack of agreement on such topics not only between philosophers of different schools but also between Naiyāyikas themselves. In part this reflects the difficulty felt by everyone about getting any rigorous classification of fallacies, but it is even more apparent that our philosophers were victimized by a horrible confusion over terminology. In what follows I shall try to give hints about this sort of difficulty, although to track down the uses of different terms synonymously and of the same terms in different senses would require that I presuppose more understanding of Sanskrit than I am in fact presuming on the part of my reader.

Let us start with Kaṇāda. He finds that there are 3 kinds of fallacies which pertain to the *hetu* term. (1) It may be contradictory (*viruddha*). (2) It may be unproved (*asiddha*). Or (3) it may be doubtful (*saṃdigdha*) It is left to his commentators to explain just what kinds of mistake Kaṇāda had in mind.

Meanwhile, however, along comes Gautama. He finds 5 varieties, only one of which verbally matches with Kaṇāda's list. The one that matches is (1) contradictory. His other 4 are (4) an *h* which is indecisive (*savyabhicāra* or *anaikāntika*); (5) where the *h*, though it is intended to establish something, merely produces doubt in the hearer about the topic (*prakaranasama*); (6) where the *h* needs proof as much as the *s* (*sādhyasama*); and (7) where the *h* is mistimed (*kālātīta*). But his explanations of some of these notions are not at all precise.

Vātsyāyana helps us a bit in understanding (1) and (7). The contradictoriness of (1), he says, occurs when one puts forth as *h* a term which contradicts something he himself holds—either the hypothesis itself or something else which the speaker holds to be true along with the hypothesis. As for (7), Vātsyāyana rejects the notion that it merely means the case where one member is spoken today and the others a year from now; actually, he says, what is meant under (7) is fallacies of equivocation generally.

Now we come to Praśastapāda. True to Vaiśeṣika tradition, he accepts (1)—(3) of Kaṇāda, but then adds one of his own, (8) uncertain (*anadhyavasita*). His explanations take us farther; (2) the "unproved" *hetu*, may be subdivided into 4 sorts, accordingas the *h* is not recognized as existing by either party, not recognized by one of the two parties, is mischaracterized, or is not recognized by one or both parties. (This last, which looks like a confusion, is viewed by Śrīdhara as actually referring to the status of the term *p*.) As for (3), the "doubtful" *h*, this occurs when what is offered as *h* turns out to reside in both *sp* and *vp*. And (8), his added "uncertain" variety, is glossed as that putative *hetu* which is too specific (*asādhāraṇa*) so that the *p* and *h* terms are identical, as in "this hill is possessed of fire, because it is this hill."

Uddyotakara tells us that (6) is the same kind of fault as (2), since if *h* needs proof as much as *s* then it is safe to say that *h* is unproved. And he provides some subvarieties of (2): (a) where the very nature (*svarūpa*) of the proposed *h* is unproved; (b) where the locus of the proposed *h* is unknown; (c) where the proposed reason (the second member of the argument) can be analyzed differently so that the *h* turns out not to prove *s*. Uddyotakara has also achieved some notoriety for his apparent belief that it might, after all, be possible to specify an exhaustive list of fallacies and thus get a decision procedure for validity, albeit a very complicated one.[23]

This brings us to Bhāsarvajña, whose treatment of fallacies, by comparison with the time spent in *Nyāyasāra* on other topics, is remarkably comprehensive. He lists 6 main varieties of *hetvābhāsa*, namely (1) contradictory, (2) unproved, (4) indecisive, (8) uncertain, (5) the *h* which produces doubt, and (7) the "mistimed." His explanation of (1) is that it is the fallacy which occurs when *h* turns out to reside in both *sp* and *vp*: we just saw that this mistake was classified by Praśastapāda under (3) doubtful. As for (2) the unproved *h*, Bhāsarvajña says that this covers all cases where it is doubtful that *h* occurs in *p*, and he subdivides it into 12 varieties, a couple of which had been classified by Uddyotakara under (6). The other 5 main varieties are elaborately subdivided as well, and in many cases it is apparent that these subvarieties are related with subvarieties of other main classes in such a way that if an argument commits one kind of mistake it must commit another. Bhāsarvajña recognizes this aspect of his classification and is unperturbed by it. For example, (4) indecisive turns out to occur whenever the supposed *h* occurs in *p*, *sp* and *vp*; it would appear that whenever this happens the *h* will also be (1) contradictory. And (8), the uncertain *h*, is explained as in

Praśastapāda. But when he comes to (5) his explanation diverges in an interesting way. In (5) the "mistimed" occurs, says Bhāsarvajña, whenever *h*'s occurrence in *p* is sublated by a valid instrument; thus Bhāsarvajña incorporates into his list of fallacies one of the added positive requirements of validity that Jayanta had insisted on, indeed both, since others among his fallacies, notably (8), rule out the possibility that one *h* can prove both *s* and its complement.

Vyomaśiva's treatment is also elaborate. It is apparent that he has read others on the topic, and his list of fallacies is not limited to the 4 given by Praśastapāda, on whose text he is commenting. In addition to Praśastapāda's (1), (2), (3) and (8) he specifically admits a fallacy he calls "mistimed," and he also discusses the (4) indecisive sort. He mentions in passing that Kaṇāda presumably included these last 2 under (1), contradictory, but is not very impressed with this notion, for he suggests that we should accept these additional types of fallacy on the authority of Nyāya authors (not Vaiśeṣika ones!) regardless of Kaṇāda's intentions.

Vācaspati Miśra equates (7), the confusing "mistimed" *h*, with a fallacy called (9) "sublated" (*bādha*), which occurs when we have adequate reason to accept (or reject) the hypothesis without appealing to any *h*. Thus it is "mistimed" in the sense that, since there is no doubt about the hypothesis, there is no occasion for an inference.

This fallacy (9) sublated, as well as a couple of others, are specifically attacked, however, by later writers such as Vallabha on the ground that a *hetvābhāsa* should directly vitiate inference. Thus Vācaspati's (9) belongs in a class with such a fault as a "straw-man" argument (*siddhasādhana*), where one sets out to prove what has already been admitted. Despite this reasoning, we find Maṇikaṇṭha Miśra including (9), sublated, among his five varieties of fallacy, the other four being (1), contradictory, (2), unproved, (4), indecisive and (5), the doubt-producing sort.

It should not be thought that one can get a summary view of our schools' views on fallacies based on merely listing the 9 major varieties we have found above. For one thing, although for various reasons no one philosopher is able to do so, it is possible to discern identities among some of the 9. For example, the fallacy Kaṇāda calls (3), doubtful, is probably the same as the one Gautama knows as (4), indecisive. Varadarāja and later writers subdivide this fallacy into two kinds, (a) the overly general, and (b) the overly specific. The later subvariety probably corresponds to Praśastapāda's (8) uncertain, where *h* and *p* are identical. The former, overly general sort occurs when one proposes as *h* something which occurs in both *s* and

the complement (or absence) of *s*. Udayana knows a fallacy called *anupasaṃhārin*, which occurs when *p*, *h* and *s* are all identical with the universal class (e.g., "whatever is nameable is knowable"). He thinks it is a variety of (2), unproved, but other writers make it a third kind of (4), indecisive. Gaṅgeśa, later on, will argue that it is not a fallacy at all.

VI. *The Examples*

As we have seen, Nyāya-Vaiśeṣikas differed from Buddhists in preserving the function of the examples and thus maintaining inference as in a sense "hypothetico-deductive" rather than purely deductive or "formal." The third member of the Nyāya argument form includes 3 sections : (1) the formulation of the general connection between *h* and *s* (there is an irresistible tendency on the part of Westerners to call this the "major premise"), (2) the positive example, and (3) the negative example. We know that in the cases of certain inferences, the only-positive and only-negative types, one or the other of the examples may be precluded. Where it is appropriate to offer examples, however, one must be careful to offer proper ones — if one does not do so, the inference is vitiated.

Many Naiyāyikas take the position that fallacies of the example are unnecessary to list separately, since they are all covered by one or another of the *hetvābhāsas*. Praśastapāda is a significant exception, however; he lists 6 fallacies for each of the 2 examples to be given. They are, for the *sp* or positive example : (1) that one or both of the parties in the discussion does not accept the proposition that *h* overlaps the proposed *sp*; (2) that one or both of the parties does not accept that *s* overlaps *sp*; (3) where both (1) and (2) occur; (4) where *sp* is empty; (5) where the connection of *sp* with *h* or *s* is not evident; (6) where *sp* is contrary to *h* or *s*. For the *vp* or negative example they are : (1) one or both parties does not accept that *h* excludes *vp*; (2) one or both does not accept that *s* excludes *vp*; (3) both (1) and (2) hold; (4) where *vp* is empty; (5) where the exclusion of *h* and/or *s* is not evident; and (6) where the *vp* is concomitant with *h* or *s*.

Discussions of fallacies of the example are also found in Bhāsarvajña and Trilocana, who add to the basic list above, and in Varadarāja, who subdivides several in Praśastapāda's list but avers that all of them can be incorporated under one or another of the fallacies of *h*.

VII. *Pervasion*

It has been a commonplace remark among writers on the history of Indian logic to say that either Dignāga or Praśastapāda was the first to clarify the notion of pervasion, a notion crucial to the theory of inference and one which increasingly dominates the writings of later logicians. However, it is clear that philosophers before the time of Dignāga knew of the concept of regular concomitance, although they did not use the term *vyāpti* for it but rather such words as *avinābhāva* and *avyabhicāra*. Therefore interest in the scholarly controversy of the early twentieth century, as to whether Dignāga or Praśastapāda "discovered pervasion," has waned more recently.

Certainly Praśastapāda had the concept of regular concomitance (*avinābhāva*), for he explicitly appeals to it in describing the nature of *h*.[24] Furthermore, as Randle indicates, his way of expressing the "major premise" that appears in the third member suggests, by contrast with Vātsyāyana's, that he viewed this premise as a general maxim rather than merely a particular relationship. Praśastapāda's way of stating the third member translates approximately as "whatever is *h* is *s*", while Vātsyāyana's formulation is not as clearly universal in form.

The reader may be puzzled as to why so much value is being placed on a "discovery" of something which is, from his standpoint, so obviously needed as a major premise connecting *h* and *s*. He will probably be surprised to learn, then, that Uddyotakara explicitly rejects the possibility of regular concomitance between *h* and *s*. The passage represents a continuation of his thoughts on the nature of the hypothesis and its terms (see p. 187). Uddyotakara asks us to explain what can be meant by "inseparable connection" between smoke and fire. What is the connection? It is not causal, he argues; the only kind of causal connection which could be viewed as inseparable is inherence causality, but smoke does not inhere in fire, nor fire in smoke. Then perhaps it is that both fire and smoke inhere in the same thing? No, since the fire is presumptively on the hill out of sight, while the smoke, or part of it, is visible rising over the hill. Well, then, perhaps the connection is that smoke and fire are the common locus of some common effect — but they are not. All right, the connection is none of these — nevertheless, there is a connection, so we will just affirm that without specifying further what kind: No, says Uddyotakara; you have no right to do that, since we frequently see smoke without fire, as well as fire without smoke.

Uddyotakara's point is not that inference is impossible. Rather,

as we saw, it is his view that what is inferred is a particular thing as qualified by a certain property. We might put his point this way. Dignāga and Praśastapāda would analyze "*p* is *s*, because it is *h*" etc. as in *Principia Mathematica*, so that if *p* stands for "is this mountain," *s* is "is fire-possessing," and *H* is "is smoke-possessing" the argument goes as follows concerning a certain individual *a* : "if *Pa* then *Sa*, because *Ha*; for all *x*, if *Hx* then *Sx*; (like *sp* and unlike *vp*)." Uddyotakara, on the other hand, will analyze the same inference as follows : where *a* stands for *this particular smoke on this hill*, *S* stands for *is-smoke-as-having-fire-close-by* and *H* stands for *is - smoke - as - instantiating-smokiness*, then the argument is best represented as : "*Sa*; because *Ha*; like kitchen, unlike lake; *Ha* · *Sa*; thus *Sa*." (Recall that the first 2 members are ascripts and do not yet assert.) For Uddyotakara member (4) is the crucial one, and the "major premise" is either impossible or, if it appears, is a crude way of saying that it is a property of smoke that it has-fire-close-by. I pointed out above, and it is once again obvious, how clearly Uddyotakara insists that the members are not words but things; his way of parsing the inference pattern contrasts with that of Dignāga and Praśastapāda in precisely the respect that the members of inference for Dignāga and Praśastapāda can be viewed better as words than as things — an interpretation which leads Dignāga's followers in the direction of Stages Two and Three of the history of the "threefold mark" sketched above.

One might also put Uddyotakara's insight by saying that he realizes that for a realist system the "is" in, e.g., "*p* is *s*" is not the "is" of predication but the "is" of identity, a kind of "essential identity" which relates two states of the same substance. The importance of a notion of identity crystallizes in Navya-nyāya times in their treatment of such matters as self-linking connectors.

Just what happens in the development of the theory of pervasion during the next 300 years is difficult to say. It would appear that controversy between Buddhist logicians and Naiyāyikas became heated, and that in their concern to meet Buddhist objections Naiyāyikas after Uddyotakara temporarily lost sight of his objections concerning the establishment of concomitance. Of views on pervasion after this 300-year gap, the earliest of which we have knowledge is that of Trilocana. He has a new and different account.

To see the merits of Trilocana's view we need to speak briefly of the Buddhist theory of pervasion. According to Dignāga's school there are only two kinds of invariable concomitance: relations of identity, and causal relations. The former allows the Buddhist to deduce "this is a tree" from "this is an *aśoka* tree." The latter allows one to

infer particular effects from their causes, causal conditions which are distinct from the effects in question. The division anticipates Hume's distinction between relations of ideas and matters of fact, i.e., what comes to be called the "analytic" and "synthetic" by Kant, etc. Now limitation of inference to just these 2 kinds neatly precludes a great many of the Naiyāyika's inferences, for he views an inference, e.g., from "this substance smells" to "this substance is earth" as neither a matter of identity nor of causality in the Buddhist sense. The theory developed by Trilocana and Vācaspati Miśra is intended to justify these unwarrantedly excluded inferences.

What Trilocana says is that pervasion, or universal concomitance, is an intrinsic relation (*svābhāvikasambandha*) between two distinct things. An "intrinsic" relation is to be contrasted with relations which are vitiated by *upādhis*, obstructions. Vācaspati's example of such a vitiated relation is this : "this mountain is smoky, because it is fiery"; here the supposed concomitance between *fire-possessing* and *smoke-possessing* is vitiated by an *upādhi*, namely *wet fuel*. What Vācaspati means is that it is only *fire-with-wet-fuel-possessing* which is intrinsically connected with *smoke-possessing*, and not *fire-possessing* alone.

Now, how is an intrinsic relation discovered? Trilocana holds that it is directly perceived, by a sense organ or the internal organ, but that repeated observation (*bhūyodarśana*) is required to bring about this perception. Vācaspati appears to have thought that the perception was always through the internal organ, not through external sense organs, but he agrees about the necessity of repeated observation.[25] This is the new way of insisting upon the importance of the *sp* and *vp*, for it is in considering them that one has the repeated observation which leads to perception of pervasion. Incidentally, Vācaspati points out that on this definition of pervasion causal relations are not always cases of invariable concomitance.

However, Vācaspati's way of talking about the occasions on which pervasion is known suggests that he still shares with Jayanta and earlier Naiyāyikas the notion that concomitance is a relation among particulars. He says that we come to know of concomitance "in a general way" (*sarvopasaṃhāreṇa*); we do not have to examine every specific case. But it seems that the pervasion primarily relates to particular cases, and the problem is how to understand our knowledge of universal relations among particulars. The reader will recall that Jayanta already knew of a kind of extraordinary perception which was held to explain how we could have such a compendious knowledge of many instances of concomitance.

Vyomaśiva, however, holds that pervasion is a relation between

universals, and that it is the application of the perceived relationship to particular cases that requires the repeated observation. This is the generally accepted view hereafter, emphasized especially by Udayana. Vyomaśiva relates this new development to the polemical context: Buddhists cannot make sense of repeated observation of the concomitance between universals as located in particular instances, since according to Buddhism everything is momentary and we are unable to repeat an observation of anything. According to Vyomaśiva it is in the fourth member of the argument form, the application, that the pervasion among universals is finally applied to the particular *p* in question.

Udayana, as noted, emphasizes especially that pervasion is a relation among universals. His main argument for this theory is that if it were otherwise, a given individual might belong to any class. That is, universals generate natural kinds, and it is their relationships which delimit the kinds of concomitances there are in the world. It is perhaps in anticipation of the same point of view that Bhāsarvajña claims that pervasion parallels any relation whatsoever, since any true relationship is reflected in the relations among the universals involved.

VIII. *Demonstration of Pervasion ; Upādhis and Tarka*

There is another aspect to this discussion which has not yet been properly brought out. It relates to how pervasion is discovered, given Trilocana's view (accepted by most of the subsequent writers in our period) that pervasion is a relation among universals which is free from vitiation by *upādhis*. The question is : how does one come to know that a proposed relation *is* free from *upādhis*? According to Kajiyama[26] it was the Jains who first proposed that one uses the method known as *tarka* to show absence of *upādhis*. *Tarka* is sometimes rendered reductio ad absurdum, which is not altogether inaccurate, since *tarka* involves proposing a false hypothesis and then by showing it false proving the truth of its negation, or at any rate helping to prove the truth of its negation. However, Buddhists such as Ratnakīrti and Ratnākaraśānti — and no doubt Buddhists before them — made use of this reductio method in a fashion objectionable to Nyāya.

The objectionable aspect of *tarka* for the Naiyāyika is that as used in certain Buddhist arguments at any rate it involves the use of a *hetu* term which is unreal (*asiddha*) or indecisive (*anaikāntika*). For example, Ratnakīrti argued for momentariness thus: "continuants have

no causal efficacy, because (being continuous in time) they do not bear temporal relations of before and after to one another; whatever fails to bear such temporal relations lacks causal efficacy, like a hare's horn," concluding that continuants, having no causal efficacy, are unreal. The Naiyāyika's complaint about this argument is at least twofold. First, Ratnakīrti allows himself to frame an argument about "things" which in his own view do not exist — not only continuants, but also things which lack causal efficacy — and thus commits the *asiddha* fallacy. Second, the example of hare's horn is unacceptable as an affirmative example, since by general agreement it does not exist. Once again, the Naiyāyika insists that language properly used in inference must have existential import, while the Buddhist does not require this. In the parlance of Udayana's and Ratnakīrti's time, the Buddhist (at least of Ratnakīrti's sort) holds the doctrine that pervasion is an inner relation between two concepts (*antarvyāptivāda*), while the Naiyāyika insists that it is an external relation between two independent and existent entities (*bahirvyāptivāda*).

Despite these reservations about *tarka*, Naiyāyikas eventually come around to accommodating its uses, and most of our later writers admit that it is an appropriate instrument in ferreting out *upādhis*. One can see from the foregoing that care must be exercised in using it. But it seems to have become a generally accepted view by Udayana's time that it is a proper ancillary technique — not an instrument of true knowledge (*pramāṇa*) in itself, but a help in proving something knowable by one of the proper instruments. Thus in distinguishing the erroneous generalization "whatever is fiery is smoky" from the valid one "whatever is smoky is fiery," one uses *tarka* as ancillary to one's survey of examples such as kitchen etc.; about each affirmative instance one thinks of one asks if it has the *h*-property, and if it does, one then asks whether it has the *s*-property. Where *h* is *fire-possessing* and *s* is *smoke-possessing* we shall in due course come to the red-hot iron ball, which is on fire but does not smoke. With respect to it, the inference "this ball is smoky, because it is fiery" fails, for the ball is not smoky. In this fashion, the finally developed view of how we come to know pervasion is that we know it by perceiving through our internal organ the relation between two universals, having subjected a variety of putative affirmative examples to test by imagining similar inferences about them.

Pervasion, then, is still an empirical matter for the Naiyāyikas. One may have thought of lots of putative affirmative examples and found none of them to produce vitiating inferences, but it still remains possible that the next one will. The question that naturally arises

is this : may there not be some way in which we can catalogue all the possible kinds of *upādhi* which can vitiate concomitance? After Udayana there is a development of theory toward a more perspicuous classification of types of *upādhi*.

After Udayana the general conception of an *upādhi* is that it is "that which is not a pervader of *h*, while it is a pervader of *s*." Clearly then, an *upādhi* is in this conception a property. In the inference from *fire-possessing* to *smoke-possessing*, the *upādhi* is the universal property *fire-with-wet-fuel-possessingness*. This property pervades *smoke-possessingness*, i.e., wherever there is smoke there is fire-with-wet-fuel. But it does not pervade *fire-possessingness*, for not all fires have wet fuel as their material.

Vallabha finds that there are 3 kinds of *upādhi*, and 4 ways of discovering them. The 3 kinds are (1) when we are certain that there is such a property, (2) when we are doubtful whether a property, which we know pervades *s*, does or does not pervade *h*, and (3) when we know that a property does not pervade *h* but have suspicions that it may pervade *s*. If we have doubts of both kinds mentioned in (2) and (3), Vallabha says we do not even know of an *upādhi* at all.

The 4 ways of discovering such a property are (1) through sublation (*bādha*), (2) through wandering (*vyabhicāra*), (3) because there is no *tarka* favorable, or (4) because there is a *tarka* against. (1) If someone argues "Fire is not hot for it is created" one can show the inference invalid by pointing out the property of *not-being-fire*, which pervades the *s* *not-being-hot* but does not pervade the *h* *being-created*. (2) If someone argues "sound is eternal, for it is an object of valid knowledge," one may point to the *upādhi* property of *being-created*. This property vitiates the inference, since *being-created* does not pervade *being an object of valid knowledge*, while whether sound is created or not is doubtful, being a point of controversy among the schools. (3) If someone argues "That man is dark-complexioned, because he is the son of Mitra," he may be refuted by pointing to the *upādhi* property *being-caused-by-eating-spinach*, since there is no reason not to suppose that this property pervades both the *h* and the *s* properties. (4) If someone argues "air is colored, because it is the locus of manifested touch," one may point to the *upādhi* *perceivable-by-the-visual-organ*. The point here is that the general relationship purported to hold between *having manifest touch* and *being colored* can be challenged through *tarka*, since one may submit that whatever is colored is perceivable by the visual organ, but that not all loci of manifested touch are visually perceptible, e.g., the fire in the boiling water. It is not necessary that this challenge be conclusive — it may be one of the "doubtful"

kinds of *upādhi* listed in the previous paragraph. (Varadarāja, incidentally, reduces Vallabha's 3 kinds to 2: certain and doubtful.)

Vallabha also feels it necessary to defend the importance of observing a number of instances in justifying a purported pervasion. He argues that a single perception of the *h* with the *s* cannot be sufficient to yield knowledge of pervasion; indeed, what the first perception produces is doubt, which needs subsequent experience, as well as *tarka* to clear up. But Maṇikaṇṭha Miśra controverts the doctrine of *bhūyodarśana* or repeated observation as necessary in apprehending pervasion: he thinks one good look can suffice. However, he also thinks that it is the external sense organs which grasp it, not the internal organ. He is skeptical of any notion that one can show *vyāpti* to hold with certainty—he seems to suggest that the Bhūṣaṇakāra supposed that it was possible to set conditions on the *h* such that pervasion would be guaranteed if the conditions are met.

At about this point the discussion turns to the definition of pervasion — a more careful formulation of the conditions which may at least be supposed to be necessary for pervasion to hold, even if they are not sufficient. It seems that some, apparently not including Maṇikaṇṭha, hoped that a set of necessary and sufficient conditions could be found. The development of such definitions carries us into the Navya-nyāya and beyond the scope of the present study.

IX. *Nature and Variety of Tarka*

From what has been said above one can see that the earlier Naiyāyikas viewed *tarka* with a certain amount of distrust. True, Gautama lists it as one of the 16 categories, but Vātsyāyana insists that it is not an instrument of knowledge in itself, though it can be used to bolster the actual instruments. Uddyotakara adds that *tarka* cannot by itself produce the state called "ascertainment," though it can show us what ought to be ascertained.

Śrīdhara explains that *tarka* comes into play when two contrary opinions on a topic are equally evidenced. He speculates upon where *tarka* should appear among the varieties of judgments — is it, for example, knowledge (*vidyā*) or ignorance (*avidyā*)? His answer is not clear; he seems to conclude that *tarka* may be a kind of doubt, since no definite cognition is produced from its use. Aparārkadeva definitely classifies it as doubt, and so does Śivāditya.

But what *is tarka*? Vallabha defines it as the invariable consequence of one property upon the assumption of another. Udayana considers an obvious challenge to this; how can *tarka* be used to help

prove invariable concomitance if it presupposes that concept in its own definition? Udayana's answer is that there is no regress or circularity, that doubt has a practical limit beyond which it is pointless. Udayana rejects any method of methodological doubt of the sort Descartes is famous for. Varadarāja merely characterizes *tarka* as an undesirable outcome, although he adds that the content of a *tarka* judgment is a real object, though one about which we are in doubt. Maṇikaṇṭha apparently is aware of a number of attempts at defining *tarka*; he criticizes them, and sets forth his own.

Varadarāja and Maṇikaṇṭha are much more generous in their treatment of *tarka* than their predecessors. It is in the *Tārkikarakṣā* that we get the development of the theory of 5 varieties of *tarka*.[27] The 5 are (1) self-residence, (2) mutual dependence, (3) vicious circle, (4) infinite regress, and (5) undesired outcome. Since the last constituted Varadarāja's definition of the whole notion, we should construe the fifth variety as covering all other undesired outcomes besides the 4 specified. Maṇikaṇṭha makes this quite clear. It seems that someone had added a sixth kind (6) contradiction (*vyāghāta*), and others a different sixth (7) equally evidenced opposing reason (*pratibandhin*), but Maṇikaṇṭha rejects these by bringing them under appropriate *hetvābhāsas*.

Varadarāja also sets forth a theory of what he calls the "members" of *tarka*, which are essentially the conditions constituting a proper instance of a *tarka* argument. Thus what happens in *tarka* is this: first one takes the opponent's pervasion, which seems to be a pervasion because of the presence of an *upādhi*; this apparent pervasion is not opposed by any other *tarka*; and so a conclusion is drawn on the basis of the supposed pervasion. But then we realize that this conclusion is "undesired," i.e., false, and thus conclude that the opponent's position cannot be proved.

X. *Theory of Debate*

A peculiar feature of the *Nyāyasūtras* is that the last book, the fifth, is given over entirely to topics which appear to relate entirely to the techniques of debating. The connection of these topics is clearly spelled out in the foregoing material, and no one doubts that it is part of the business of Nyāya. It does mean, however, that those who commented on the *sūtras* and on its literature were forced to spend time on the complexities of questions which related more to rhetoric than to truth. One might or might not be fascinated by such topics. Udayana, for one, wrote a whole separate treatise

about these matters, the *Nyāyapariśiṣṭa* or *Bodhasiddhi*; this seems to have been a separate retreatment of Vācaspati's *Tātparyaṭīkā* on the fifth chapter of the *sūtras*, which according to N. C. Vedantatirtha he had already covered in his *Pariśuddhi*.[28] But not all of our philosophers were by any means so engrossed in the theory of debate.

In the *Nyāyasūtras* we find a number of items among the 16 categories which Gautama proposes that have not as yet been treated. They relate to the context of argumentation and its kinds. The categories in question are argument (*nyāya*), discussion (*vāda*), tenet (*siddhānta*), cavil (*vitaṇḍā*), sophistry (*jalpa*), quibble (*chala*), futile rejoinder (*jāti*), and ways of losing an argument (*nigrahasthāna*).

We have seen, in our discussion of the theory of inference, that Nyāya features a 5 membered form of argumentation unlike that found in other logical systems. This constitutes what Gautama calls argument. Now arguments are frequently found occurring in argumentation, or controversy (*kathā*). Controversies, in turn, may be divided into kinds. According to Gautama there are 3 kinds of controversy, namely discussion, cavil, and sophistry. Discussion occurs when two people with differing opinions carry on argumentation using proper means of reasoning (i.e., the 5 membered form, the proper instruments of knowledge plus *tarka*) with intent to discover which of the two views is correct. However, if the controversy is carried on with intent only to defeat the opponent by fair means or foul, it will be termed sophistry — and if, furthermore, the participants care only for refuting the opponents' arguments and nothing for the worth of their own, this is called cavil. Among the foul means which characterize sophistry and cavil, quibble and futile rejoinders are prominent, and if all that is at a stake is the question of who wins and who loses the debate the several ways of losing an argument must be studied.

Such is Gautama's picture of argumentation. It is developed at length by some of his successors. The importance of this material for philosophy must not be underestimated, but its worth lies in the wealth of detail it provides to illustrate theories which are developed elsewhere, e.g., in theory of inference. Therefore, it is not worthwhile to attempt a lengthy summary of these topics in this introduction. The interested reader should consult the pertinent parts of the summaries that follow, particularly those pertaining to the fifth book of the *Nyāyasūtras*.

PART TWO

SUMMARIES OF WORKS
(arranged chronologically)

1. KAṆĀDA (Ulūka, Kaṇabhakṣa, Kaṇabhuj, Kāśyapa)

The author of the earlier of the two sets of aphorisms central to this system, the *Vaiśeṣikasūtras*, is referred to by several names; the one usually used now is Kaṇāda. As is common with important authors of ancient times, numerous legends have grown up around this personage, some of them rather amusing. In the case of Kaṇāda there are stories based on his name. One is that he is known as Kaṇāda because of his atomic theory — the etymology is supposed to give us "atom-eater" for the name. Another is reported in the *Life of Harivarman* (A.D. 450) : our author was a man of nocturnal habits, and "as young women were frightened by the sight of him... he afterwards went in secret into mills, picked up pieces of corn from rice-bran, and ate them." He is accordingly known as "rice-grain-eater" (Kaṇabhuj or bhakṣa) and as "owl" (Ulūka). The Chinese, says Ui, do not know of the translation of Kaṇāda" as "atom-eater."[1] On the other hand, the *Nyāyakośa* tells us that our author was known as Ulūka, "owl," because the god Mahādeva appeared to him in the form of an owl and revealed the Vaiśeṣika system.[2]

It is pretty clear that we are dealing here with a mythical personage. The Vaiśeṣika system had its beginnings at some indeterminate time B.C. One writer dates Kaṇāda 800 years before the Buddha.[3] He is said to have taught in Banaras: one of his pupils is reputed to have been Pañcaśikha, son of Māṇavaka. Ui says this is confused with Sāṃkhya tradition.[4]

By the time of Caraka, the medical writer, and of the Buddhist works *Vibhāṣā* and *Mahāvibhāṣā*, all of which date from Kaniṣkan times (i.e., around the turn of the era, plus or minus 100 years.), the Vaiśeṣika system is known to others in a fashion closely resembling that set forth in the *Vaiśeṣikasūtras*. Ui points out, however, that Nāgārjuna and Āryadeva, but not Aśvaghoṣa, know Vaiśeṣika in a manner which precisely reflects some of the *sūtras*, and on this basis suggests A.D. 50 to 150 as a likely date for the *sūtras*' achieving their present form.[5]

The only work attributed to Kaṇāda is the *Vaiśeṣikasūtras*. It is difficult to say in what order the component *sūtras* were originally

arranged, or indeed whether some of the *sūtras* are even authentic. This is largely because the extant literature is very scanty. Until recently scholars were forced to depend upon the commentary of Śaṃkara Miśra I, although they were aware that this commentator's readings were suspect and that the original form of the work was different both in content and arrangement. Recently fragments of earlier commentaries have come to light. A commentary by one Candrānanda has been edited by Sri Jambuvijaya Muni, and Anantlal Thakur has edited a commentary which he thinks is an abridged version of a work of Bhaṭṭa Vādīndra.

VAIŚEṢIKASŪTRAS

(Summary by Masaaki Hattori)

This textbook of aphorisms expounds the basic tenets of the Vaiśeṣika system. The order of the *sūtras* in all these works deviates from that given by Śaṃkara Miśra. In this summary of Professor Hattori, the Candrānanda *sūtrapāṭha* has been followed. References in parentheses are to Jambuvijaya's edition (B 58) (E) and N. Sinha's translation (B 43) (T). It consists of 10 chapters (*adhyāya*) of which the first 7 are respectively divided into 2 sections (*āhnika*).[6] It deals with various topics concerning the 6 categories, but the arrangement of the topics is not systematic.

1. Entities are arranged under 6 categories,[7] namely, substance (*dravya*), quality (*guṇa*), motion (*karman*), genus (*sāmānya*), species (*viśeṣa*), and inherence (*samavāya*). (T8)

2. The characteristic feature of substance consists in its possessing motion, possessing qualities, and being an inherence cause of motion and quality (I.1.14) (E5; T25)

3. The characteristic feature of quality consists in its residing in substance, not possessing qualities, and being, when independent, not a cause of contact or disjunction. (I.1.15) (E5; T26)

4. The characteristic feature of motion consists in its possessing one substance, possessing no qualities, and being an independent cause of contact and disjunction. (I.1.16) (E5; T27)

5. Excepting Being (*bhāva*),[8] genera such as substanceness, qualityhood, and motionhood may be regarded as species from another point of view. The ultimate species (*antya viśeṣa*) is never regarded as a genus. (I.2.4-6) (E8; T41-43)

6. Being is the cause of the notion "exist" in respect to substances, qualities, and motions. (I.2.7) (E9; T43)

7. Inherence is the cause of the notion that (*A* is) "here" (in *B*) with respect to effect (*kārya*) and cause (*kāraṇa*).[9] (VII.2.29) (E61 ; T243)

8. There are 9 substances, viz., earth (*pṛthivī*), water (*āpas*), fire (*tejas*), air (*vāyu*), *ākāśa*, time (*kāla*), place (*diś*), self (*ātman*), and internal organ (*manas*). (I.1.4) (E2;T17)

9. There are 17 qualities, viz., color (*rūpa*), taste (*rasa*), smell (*gandha*), touch (*sparśa*), number (*saṃkhyā*), size (*parimāṇa*), separateness (*pṛthaktva*), contact (*saṃyoga*), disjunction (*vibhāga*), remoteness (*paratva*), nearness (*aparatva*), judgment (*buddhi*), pleasure (*sukha*), pain (*duḥkha*), desire (*icchā*), aversion (*dveṣa*), and effort (*prayatna*).[10] (I.1.5) (E2; T18)

10. There are 5 kinds of motion, viz., throwing upwards (*utkṣepaṇa*), throwing downwards (*avakṣepaṇa*), contracting (*ākuñcana*), expanding (*prasaraṇa*), and going (*gamana*), (I.1.6) (E2; T19)

11. Being is one, because of the uniformity of its mark "is," and because of the absence of any mark of differentiation. (I.2.18) (E10; T47)

12. Inherence is one, for the same reasons. (VII.2.3.) (E61; T246)

13. Substance, quality, and motion are not distinct from each other in their being existent (*sat*), noneternal (*anitya*), substance-possessing, effect, cause, and genus-and-species possessing. (I.1.7) (E3; T21)

14. Substances originate another substance. Qualities originate another quality. No motion is originated by (another) motion (I.1.8-10) (E3-4; T22-23)

15. A substance is not incompatible with its effect, nor is it incompatible with its cause. A quality is both incompatible and compatible with its effect and with its cause. A motion is incompatible with its effect. (I.1.11-13) (E4-5; T24)

16. Substance and quality are causes of substance, quality, and motion. Motion is a cause of contact and disjunction, but not of substance nor of motion. (I.1.17-21) (E6; T27-30)

17. Substance is a common effect of substances, and of contacts, but not of motions. Among qualities, numbers beginning with two, separateness, contact, and disjunction are common effects of substances; color is a common effect of colors; contact and disjunction are common effects of motions. No motion is a common effect of substances or of motions. Throwing upwards is a common effect of weight (*gurutva*) volition, and contact. (I.1.22-29) (E6-7; T30-33)

18. Being is not a substance, because it possesses one substance[11]·

It is neither a motion nor a quality, because it exists in qualities and motions. Also because of the absence of genus and species in it, Being is known to be different from substance, quality, and motion. For the same reasons, substanceness, qualityhood, and motionhood are known to be different from substance, quality, and motion. (I.2.8-17) (E9-10; T43-46)

19. Earth possesses color, taste, smell, and touch. Water possesses color, taste, and touch, and is fluid (*drava*) and viscous (*snigdha*). Fire possesses color and touch; air possesses touch. *Ākāśa* possesses no color, taste, smell, or touch. (II.1-5) (E11; T48-54)

20. The fluidity of earthly substances such as ghee, etc., and that of fiery substances such as tin, etc., which arise from their conjunction with fire, constitutes their similarity to water. (II.1.6-7) (E11-12; T55)

21. Air as an invisible substance is inferred from the touch which is different from that of the visible substances. Air is eternal. The plurality of air is known from the concurrence of air with air. (II.1.8-14) (E12-13; T56-62)

22. *Ākāśa* is inferred from sound (*śabda*), which is not an attribute of the substances possessing touch, nor of the internal organ, nor of the self.[12] *Ākāśa* is eternal and uniform. (II.1.24-28) (E15; T63-70)

23. Smell, hot touch, and cold touch reside respectively in earth, fire, and water exclusively. (II.2. 1-5) (E16-17; T73-75)

24. Time is inferred from the fact that there arises the notion "remote" in respect to that which is spatially nearby. Such notions as "simultaneous," "nonsimultaneous," "quick," and "slow" are also inferential marks (*liṅga*) of time. Time is eternal and uniform. However, plurality is ascribed to time because of the difference among its effects. The view that time is nothing other than motion is untenable. (II.2.6-11) (E17-18; T75-78)

25. Place is that to which is due notions such as "(*A* is) to the east (of *B*)," etc. It is eternal and uniform. However, plurality is ascribed to it because of the difference among its effects. (II.2.12-18) (E18-19; T78-82)

26. Doubt (*saṃśaya*) arises from perception of the generic character of an object, nonperception of its specific character, and memory (*smṛti*) of the specific character. (II.2.19-23) (E19-20 : T82-85)

27. There is no reason to doubt whether sound is a substance, quality, or motion, since sound is proved to be a quality. The view that sound is eternal (*nitya*) is untenable.[13] Sound is proved to be noneternal. (II.2.24-43) (E20-24; T86-93)

28. Self is known to exist by means of inference. That which is in contact with *x*, that which is inherent in *x*, that which is inherent in the same thing in which *x* is inherent, and that which is in contradiction to *x*, are the inferential marks of *x*. When an inferential mark of *x* is universally known, it is recognized as the cause proving the existence of *x*. Thus, universal awareness of the senses and their objects is the mark proving the existence of the self as the "cognizer." (III. 1.1-9) (E25-26; T96-102)

29. Contradictory (*aprasiddha*), unreal (*asat*), and doubtful (*sandigdha*) marks are not recognized as valid marks. (III.1.10-12) (E26-27; T107-08)

30. That which is produced from the contact of self, sense organ, internal organ, and object (viz., a judgment) is a different mark proving the existence of the self.[14] (III. 1.13) (E27; T111)

31. The selves of other persons are inferred from the activity (*pravṛtti*) and the cessation of activity (*nivṛtti*) seen in their bodies. (III.1.14) (E27; T113)

32. The mark of the internal organ is the presence (*bhāva*) and absence (*abhāva*) of judgment (*jñāna*) when there is contact between self, sense organ, and object. Internal organ is one in each organism, and is eternal. (III.2.1-3) (E28; T114-16)

33. Self is inferred from such marks as breathing upward, breathing downward, shutting the eye, opening the eye, life, movement of the internal organ, modification of another sense organ, pleasure, pain, desire, aversion, and effort. Self is eternal. (III.2.4-5) (E28-29; T117-19)

34. Self is indicated by the word "I". The view that the word "I" indicates the body proves incorrect. (III.2.6-14) (E29-30; T120-27)

35. The plurality of selves is established from the difference between the states of different persons, and also on the authority of scripture (*śāstra*). (III.2.15-17) (E31; T127-31)

36. That which is existent and has no cause (i.e., an atom) is eternal. It is not perceived, but is inferred from its effect. (IV.1.1-5) (E32; T133-36)

37. Perception of a substance which has large (*mahat*) size occurs because of its possession of many substances and also because of color residing in it. An atom which does not possess any substances, and air which is devoid of color, are not perceived. (IV.1.6-8) (E33; T136-38)

38. Perception takes place in regard to color, taste, smell, and touch, because of their inherence in a substance consisting of many

substances and because of the specific properties of color, taste, smell, and touch[15] respectively residing in them. Since the specific property of one object is absent in another, there is no confusion among perceptions of these four objects. (IV.1.9-11) (E33; T138-40)

39. Number, size, separateness, contact, disjunction, nearness, remoteness, and motions become the object of visual perception through their inherence in a substance possessing color. When they reside in a substance devoid of color, they do not come within the range of visual perception (IV.1.12-13) (E33-34; T141-42)

40. Qualityhood and Being are cognized by all the senses. (IV. 1.14) (E34; T142)

41. The body (*śarīra*) is made of only one element; the other elements are merely in contact with the body. (IV.2.1-3) (E35; T144)

42. There are bodies not born from the womb. (IV.2.4-9) (E35-36; T145-49)

43. Motions related to the self directly or indirectly are produced by various causes such as contact, effort, impact, and impulsion. In some cases, the combination of different causes produces a motion, as for example, the motion in the hand is caused by volition and the conjunction of the hand with the self. In some cases, a single cause produces a motion, as for example, the motion of a pestle is produced by the impact of the pestle on a mortar. When there is no cause which produces motion, there results the falling down of a thing because of its weight. (V.1.1-14) (E39; T151-57)

44. The motion of the jewel towards a thief, and the motion of the needle toward a lode-stone, are caused by *adṛṣṭa*. (V.1.15) (E39; T157-58)

45. The flight of an arrow consists of a series of motions, of which the subsequent ones arise from the dispositional tendency (*saṃskāra*) produced by the preceding ones. (V.1.16-17) (E39; T158-59)

46. Motions of earth, fire, and air are caused by impulse, impact, contact with what is in contact, or by *adṛṣṭa*. (V.2.1-2; 13-14) (E40, 41-42; T161-66)

47. Various motions of water result from different causes: falling down results from gravity or *adṛṣṭa*; flowing from fluidity; ascent from contact of air with the sun's rays, and so forth. (V.2.3-12) (E40-41; T162-64)

48. Motion of the internal organ is caused by effort and the contact of the internal organ with the self. (V.2.15) (E42; T166)

49. When the internal organ abides in the self but not in the senses,

there results the absence of pleasure and pain, which is called yoga. (V.2.16-17) (E42; T167-68)

50. In the absence of *adṛṣṭa*, which causes transmigration, there is the absence of contact of the internal organ with the self (which results in life), and also nonappearance of another body: this state is liberation (*mokṣa*). (V.2.19-20) (E43; T169-70)

51. Darkness (*tamas*) is not an independent substance, but is merely the absence of light. (V.2.21-22) (E43; T171)

52. Place, time, and *ākāśa* have no motion. (V.2.23) (E44; T172)

53. Qualities and motions have no motion. (V.2.24-25) (E44; T172-73)

54. In spite of their motionlessness, qualities as well as place and time are recognized as causes.[16] (V.2.26-28) (E44; T173-74)

55. Exaltation (*abhyudaya*) results from merit (*dharma*), which is produced by following the Vedic precepts, entertaining a pure Brahmin (*brāhmaṇa*), and giving together with him the benediction, etc. Conversation with an impure Brahmin produces demerit (*adharma*). (VI.1.1-12) (E45-46; T175-80)

56. When a person invites a Brahmin, preference is to be given to one who is superior to him, but not to one who is equal or inferior to him. (VI.1.13-14) (E47;T180)

57. Taking of another's property (*parādāna*) is to be done by a Brahmin from a pious person who is, in the order of preference, inferior, equal, or superior to him. When the Brahmin is prevented from taking another's property, he should take recourse to, according as the interferer is inferior, equal, or superior to him, killing, (either of) self-killing and killing, or self-killing. (VI.1.15-18) (E47; T181-83)

58. Bathing, fasting, chastity, residence in the preceptor's family, dwelling in a forest, sacrifice, gift, oblation, observance of the rules regarding direction constellation, sacred formula, and time, which are mentioned in religious texts without any visible purpose, are meant for exaltation. (VI.2.1-2) (E48; T184-85)

59. Nondeception in the four stages of life (*āśrama*), and offering pure food to a Brahmin produce merit. The deeds contrary to these produce demerit. (VI.2.3-11) (E48-50; T186-88)

60. Activity toward merit and demerit is preceded by desire and aversion, which arise from various causes. (VI.2.12-17) (E50; T189-91)

61. From the accumulation of merit and demerit there result the contact and disjunction of merit and demerit with and from the body.

The absence of these contacts and disjunctions is emancipation. (VI. 2.18-19) (E50-51; T191-92)

62. Color, taste, smell, and touch residing in noneternal earth as well as those residing in the atoms of earth, are noneternal. (VII.1. 4-7) (E52; T193-94)

63. Color, taste, and touch residing in the atoms of water, fire, and air are eternal; those residing in noneternal water, etc., are noneternal. (VII.1.8-9) (E52-53; T194-95)

64. In earth qualities such as color, etc., are preceded by the qualities of the cause, or they are newly produced by cooking (*pākaja*). In water, fire, and air the qualities are preceded by the qualities of the cause, and there is no quality produced by cooking. (VII.1. 10-11) (E53; T196)

65. A quality comes to reside only in that substance which has no quality as yet. The atom of earth, when being cooked, loses its qualities and remains without any quality. Therefore, a new quality produced by cooking comes to reside in it. Qualities and motions have no qualities. (VII.1.12-14) (E53; T202)

66. Size is fivefold : largeness (*mahattva*), smallness (*aṇutva*), longness (*dīrghatva*), shortness (*hrasvatva*), and sphericity (*pārimaṇḍalya*). Largeness results from the multiplicity of the causes, the largeness of the causes, and a particular accumulation; it is perceived. Smallness is contrary to largeness. Largeness and smallness do not possess largeness and smallness. The explanation of largeness and smallness apply also to longness and shortness. These four varieties of size are noneternal or eternal according to whether they reside in a noneternal or eternal substance. Sphericity is the shape of an atom; it is eternal; it is inferred from the fact that there is no substance which has no shape (VII.1.15-27) (E53-55; T203-10)

67. *Ākāśa*, self, place, and time are large. Internal organ is small. (VII.1.28-32) (E55-56; T211-13)

68. Unity (*ekatva*) and separateness : their eternality and noneternality, and their arisal, parallel those of color and fiery touch (cf. 63, 64); they do not possess unity and separateness; they do not exist as causes or effects. (VII.2.1-9) (E57-58; T214-19)

69. Contact and disjunction are respectively threefold: that which is produced by the motion of either one of the two conjuncts or disjuncts, that which is produced by the motion of both, and that which is produced by contact or disjunction. They do not possess contact and disjunction. There is neither contact nor disjunction between cause and effect. (VII.2.10-14) (E58-59;T225-33)

70. A word (or a sound) does not contact its object. The notion

of an object is derived from the word for it merely on the basis of convention (*samāyika*). (VII.2.15-24) (E59-60; T234-36)

71. Nearness and remoteness result from two things standing near and remote in the same direction or at the same time, and also from nearness and remoteness of the cause. They do not possess nearness and remoteness. (VII.2.25-28) (E60-61; T238-42)

72. A judgment arises from the contact of sense organ, object, self, and internal organ. Judgments concerning qualities, motions, genus, and species arise through judgments concerning the substance in which they reside. Judgments about substance, quality, and motion depend on genus and species. Judgments about substances depend on substances, qualities, and motions. Judgments about qualities and motions do not depend on judgments about qualities and motions. (VIII.1-9) (E62-63; T247-54)

73. Judgments of "whiteness" and of "white" stand in the relationship of cause and effect. Judgments arising successively in respect to different substances, or in respect to substance, quality, and motion, do not form the relationship of cause and effect. (VIII. 9-14) (E63-64; T254-59)

74. Each sense organ is composed of one element: olfactory, gustatory, visual, and tactual senses are respectively composed of earth, water, fire, and air. (VIII. 15-17) (E64-65; T259-60)

75. A thing is nonexistent (*asat*) prior to its production. A thing becomes nonexistent after its destruction. A thing is nonexistent as something other than itself. That which is absolutely different from the existent is also nonexistent. (IX.1-12) (E66-68; T262-70)

76. Yogic perception arises in respect to the self and its qualities, as well as to the other substances together with the qualities and motions residing in them. It derives from a particular contact of the self and the internal organ, or from the contact of the sense organ, object, self, and internal organ. (IX. 13-17) (E68-69; T272-76)

77. "This is the effect of *x*," "..the cause of *x*," "..the conjunct of *x*," "..something co-inhering with *x* in the same thing," or "... contradictory to *x*" —these are types of judgments based on an inferential mark. Judgment derived from words is not a different type from judgment based on inferential mark. (IX. 18-21) (E69-70; T277-87)

78. Memory, dream, and consciousness in dream result from a particular contact between self and internal organ, and from dispositional tendencies. (IX.22-23) (E70; T290-92)

79. Imperfect knowledge (*avidyā*) results from defects of the sense

organs, and also from the dispositional tendency of past imperfect knowledge. (IX.25) (E70; T293)

80. Intuitive cognition (*darśana*) of the sage (*ṛṣi*), and vision of the perfected ones (*siddha*), result from merit. (IX.28) (E71; T294)

81. Pleasure and pain are different from the five elements and their qualities; they are qualities of the self. (X.1-2) (E72; T296)

82. The arising of doubt and ascertainment (*nirṇaya*) is similar in fashion to that of perceptual and inferential judgments respectively. (X.3-4) (E72; T297-98)

83. "There has arisen an effect," "there will be an effect," "there is an effect," "there was an effect" — these judgments arise from perceiving something related to that effect in one way or another. (X.5-10) (E73-74; T299)

84. The notion of "cause" arises in respect to substance, motion, and some of the qualities. (X. 12-18) (E74-75; T302-04)

2. GAUTAMA (Akṣapāda, Dīrghatamas, Gotama, Medhātithi Gautama)

It is common practice to refer to the author of the *Nyāyasūtras* as "Gautama" or "Gotama." Unfortunately it is a very common name in India, and various personages by this name probably flourished in very ancient times. Indian scholars have attempted to identify the author of these *sūtras* with one or another such person, some of them apparently dating back even to earliest Vedic times.[1]

Other scholars, with perhaps more caution, suggest that the work we now have grew in several stages, some of which may have been in existence before the beginning of our era, and that while Gautama, referred to as the founder of the Nyāya system, perhaps played some part in the composition of the work, it was not until around the 2nd century A.D. that the work took the form in which it now appears. The crucial question about the dating of this final form has come to turn on the question of the relation between the *sūtras* and Nāgārjuna's writings. Nāgārjuna, the great Mādhyamika Buddhist philosopher, probably flourished in the second century. Jacobi, in his famous article on the dating of the various *sūtras* of the schools, argues that *sūtra* IV.2.25 of our present text is specifically addressed against the Mādhyamika system, and he thus gives Nāgārjuna's time as the *terminus a quo* for the date of the *Nyāyasūtras*.[2] However, more recently there have been suggestions that, as Satkari Mookerjee puts it, the usual "chronological assessment seems naive and hasty," since more

careful reading of texts, e.g., of Nāgārjuna's *Vaidalyaprakaraṇa*, may well show that Nāgārjuna knew or even quoted the *Nyāyasūtras*.[3]

As a matter of fact, commentators know the author of the *sūtras* not as "Gautama" but as Akṣapāda, a name which means literally "eyes in his feet." A person named Akṣapāda is mentioned in the Rāmāyana; he came from Mithilā, and was known as "eyes in his feet" either (in one version) because God gave him eyes in his feet after he fell into a well, or (in another) because he needed an additional pair of eyes to keep a vow.[4] Satischandra Vidyabhusana suggests that Akṣapāda wrote the final version of the *sūtras*; the Akṣapāda he has in mind, however, is one mentioned in the *Brahmāṇḍapurāṇa* who is said to have come from Kathiāwār.[5]

One may sum up the situation pretty safely by saying that we have not the vaguest idea who wrote the *Nyāyasūtras* or when he lived. A possibly more fruitful inquiry has been proposed, oriented toward discovering which parts of the work — or which *sūtras* — were earlier, and which later in the *corpus*. G. Oberhammer[6] has offered remarks on this topic, suggesting that the first and last (fifth) chapters of the work are the earliest in origin, and indeed that Chapters 3 and 4 may represent another work which was combined with the other chapters at a date after the 4th century. His evidence for this suggestion is provided by Guiseppe Tucci's discovery that in certain Buddhist works, e.g., the *Śataśāstra* of Āryadeva, certain of the *sūtras* are quoted but are evidently not considered part of the work but rather, according to Tucci, are viewed as stemming from a Vaiśeṣika work.[7]

The *Nyāyasūtras* have been more fortunate than the *Vaiśeṣikasūtras* in having been commented on several times within a few hundred years of their initial redaction, in works which have been saved for posterity. The earliest known commentary, that of Vātsyāyana, is nevertheless removed by at least 200 years from Nāgārjuna's time, and it is evident that even in that space the meaning of some of the *sūtras* has become confused or forgotten. Stylistically, the *Nyāyasūtras*, particularly in the third and fourth books, are more discursive than the *Vaiśeṣikasūtras*.[8]

NYĀYASŪTRAS

(Summary by Karl H. Potter)

This is the primary text of the *prācīna* or older Nyāya school. It is divided into five *adhyāyas* or "lessons," usually called "books"; each lesson is divided into *āhnikas* or daily portions,

and these in turn contain a number of *sūtras*, "threads," or aphorisms. These *sūtras* are also divided into *prakaraṇas* or "topics" by commentators such as Vātsyāyana and Vācaspati Miśra. The topics into which the following summary is organized sometimes deviate from the classification of the classical commentators, however, and certain numbered sections are not covered in these summaries.

The *sūtrapāṭha* followed here is the one accepted in the Chowkhamba edition of Ganganatha Jha and Dundhiraja Sastri (B 253), pages of which are referred to following the letter "E" below; references preceded by "T" are to Jha's translation [B264 (2).]

BOOK ONE : PORTION ONE

Topic I : *Subject Matter and Purpose of the Work.* (E14-42; T3-16)

(*Sūtra*) 1. Correct judgment (*jñāna*) of the nature of the following (categories) leads to perfection (*niḥśreyasa*) :

1. instrument of knowledge (*pramāṇa*)
2. object of knowledge (*prameya*)
3. doubt (*saṃśaya*)
4. purpose (*prayojana*)
5. example (*dṛṣṭānta*)
6. tenets (*siddhānta*)
7. members of an inference (*avayava*)
8. *tarka*
9. ascertainment (*nirṇaya*)
10. discussion (*vāda*)
11. sophistry (*jalpa*)
12. cavil (*vitaṇḍā*)
13. fallacies of the reason (*hetvābhāsa*)
14. quibble (*chala*)
15. futile rejoinder (*jāti*)
16. ways of losing an argument (*nigrahasthāna*)

2. By annihilating wrong judgments (*mithyājñāna*) one brings about the annihilation in turn of defects (*doṣa*), activity (*pravṛtti*), birth (*janma*), and pain (*duḥkha*), and this leads to release (*apavarga*).

Topic II : *The Instruments of Knowledge.* (E53-86; T16-32)

3. The four instruments of knowledge are :

1. perception (*pratyakṣa*)
2. inference (*anumāna*)
3. comparison (*upamāna*)

4. verbal testimony (*śabda*)

4. Perception is a judgment which is (1) produced from connection (*sannikarṣa*) between sense organ (*indriya*) and object; (2) is *avyapadeśya* (inexpressible? unnameable?)[9]; (3) does not wander (*avyabhicāra*); and (4) is well-defined (*vyavasāyātmaka*).

5. Inference (1) follows on perception and (2) is of 3 kinds: (a) *pūrvavat*; (b) *śeṣavat*; and (c) *sāmānyatodṛṣṭa*.[10]

6. Comparison is a way of proving what is to be proved through a thing's sharing qualities with what is already known.

7. Verbal testimony is the teaching of a reliable person (*āpta*), and has two varieties: (1) where its object is seen, and (2) where its object is not seen.

Topic III: *The Objects of Knowledge*: (E88-110; T32-53)

9. The objects of knowledge are:

1. self
2. body (*śarīra*)
3. sense organs
4. object (*artha*)
5. judgment
6. internal organ
7. activity
8. defect
9. rebirth (*pretyabhāva*)
10. fruit (*phala*)
11. pain
12. release

10. The marks (*liṅga*) of a self are: (1) desire; (2) aversion (3) effort; (4) pleasure; (5) pain; (6) judgment.

11. The body is the locus (*āśraya*) of gestures (*ceṣṭā*), sense organs, and objects.

12-14. From the elements (*bhūta*) come the olfactory, gustatory, visual, tactual, and auditory sense organs. These elements are (respectively) earth, water, fire, air, and *ākāśa*. Their objects are (respectively) smell, taste, color, touch, and sound.

15. *Buddhi*, *jñāna*, and *upalabdhi* are all words denoting judgments.

16. The internal organ's mark is that more than one judgment does not arise at a time.

17. Activity is the operation of speech (*vāk*), of judgment, and of the body.

18. Defects are things which cause activity.

19. Rebirth is re-arising.
20. The fruit is a thing produced by activity and defect.
21. Pain is uneasiness (*bādhanā*).
22. Release is absolute freedom (*vimokṣa*) from pain.

Topic IV : *The Preliminaries of Argument* (*nyāya*). (E119-28; T53-58)

23. Here Gautama gives a definition of doubt which is obscure.
24. Purpose is that object toward which one acts.
25. The example is an object on which the ordinary man and the expert agree.

Topic V : *The Nature of Tenets.* (E130-35; T57-61)

26-31 : A tenet is accepted as correct for various reasons, e.g., because it is the topic of some course of teaching or because it is admitted without proof. Gautama finds four varieties of tenets.

Topic VI : *The Nature of an Argument.* (E136-49; T61-73)

32-39 : The members of an argument are 5 : (1) the hypothesis (*pratijñā*); (2) the reason (*hetu*); (3) the example(s) (*udāharaṇa*); (4) the application (*upanaya*); and (5) the conclusion (*nigamana*). Each of these is defined. The hypothesis identifies the thing to be proved (*sādhya*). The reason proves it by showing its similarity to the examples, which may be positive — sharing with the reason the property to be proved; or negative — sharing with the reason the absence of the property to be proved. The application applies the example(s) to the instance under discussion, and the conclusion restates the hypothesis as now demonstrated.

Topic VII : *Nature of the Subsidiary Processes in Proving an Argument.* (E155-60; T73-80)

40. *Tarka* is to be brought into play when the truth is (otherwise) unknown.
41. Ascertainment is determining the nature of something by considering both of two opposing views.

BOOK ONE : PORTION TWO

Topic VIII : *Controversy* (*kathā*). (E166-74; T80-86)

1. Discussion is presenting of two opposing views, setting forth one's own in 5 membered arguments, proving it by appeal to the instruments of knowledge and to *tarka*, when correct conclusions are not thereby contradicted.

2. Sophistry is like a discussion but involves supporting and condemning arguments through quibbling, futile rejoinders, and (use of) ways of losing an argument.

3. Cavil is sophistry, but without even trying to establish anything.

Topic IX : *Fallacies of the Reason.* (E176-86; T85-97).

4-9 : There are 5 kinds of fallacies of the reason : (1) *savyabhicāra*, a reason which is indecisive (*anaikāntika*); (2) *viruddha*, a reason which contradicts accepted tenets ; (3) *prakaraṇasama*, a reason intended to establish something but which only produces doubt; (4) *sādhyasama*, a reason which is as much in need of proof as the thing to be proved; (5) *kālātīta*, a reason which is mistimed.

Topic X : *Quibble.* (E190-200 ; T92-104)

10-17 : Quibbling is defined as controverting a proposition by giving it a different meaning. Three sorts are distinguished : (1) verbal quibbling, when the proposition is not worded carefully; (2) quibbling about classification, by classifying the subject of discussion in some overly wide class; and (3) a third sort called *upacārachala*, which an objector tries to reduce to the first sort.

Topic XI : *Mistakes in Argumentation Due to the Incapacity of the Arguer.* (E200-05; T104-06)

18. Futile rejoinders are objections to a proposition based on irrelevant similarities and differences between the reason and the thing to be proved.

19. Ways of losing an argument occur when the arguer misunderstands or fails to understand what the argument is about.

20. There are varieties of both of the above mistakes.

BOOK TWO : PORTION ONE

Topic XII : *Discussion of Doubt.* (E207-21; T107-18)

1-7 : An opponent argues that doubt is not a product: it does not start at any specific time, but is actually endless since its cause is everpresent. Gautama answers that his definition (I.1.23) is framed so as to allow doubt to have a beginning and an end.

Topic XIII: *General Discussion of Instruments of Knowledge.* (E222-48; T118-37)

8-16 : The validity of instruments of knowledge is questioned on the ground that perception, for example, cannot arise before, after,

or at the same time as its object without defeating one of Gautama's tenets. Gautama's answer is that the opponent's demonstration itself presupposes the validity of instruments of knowledge.

17-20: The objector complains that an instrument of knowledge requires an infinite regress of other instruments of knowledge to justify it. Gautama's reply is to liken the operation of an instrument of knowledge to the illumination of things by a lamp.

Topic XIV : *Discussion of Perception.* (E252-69; T139-48)

21-30 : Gautama's definition (I.1.4) of perception is found insufficient by the opponent, for it fails to mention the necessity that there be contact between the self and its internal organ, as well as certain other general conditions. Gautama answers that the internal organ is not mentioned because we have perceptions even when asleep or inattentive.

31-32 : *Objection* : Perception is really inference, since we only perceive a part of the object. *Answer* : Well, we do perceive that part, so perception is not merely inference.

Topic XV : *Discussion of the Whole* (*avayavin*). (E270-80; T147-51)

33-37 : There must be wholes, since we can hold and pull things. And one cannot draw an analogy between wholes and their atomic parts, on the one hand, and an army and its soldiers on the other, for atoms, unlike soldiers, are too small to be perceived.

Topic XVI : *General Discussion of Inference.* (E294-95; T163-65)

38-39 : Certain reasons give rise to erroneous inferences, an opponent objects. E.g., from seeing a swollen river, we infer it has rained upstream, but it may only be due to the river having been dammed up below. Gautama's answer is that the reasons in such cases are incompletely specific — e.g., a river swollen from rain upstream looks different from one that is dammed up.

Topic XVII : *Discussion of Present Time.* (E299-308; T167-71)

40-44 : An opponent questions the possibility of inference on the ground that there is no present — only past and future. The answer is that past and future depend on present ; inference about past and future depends on present perceptions.

Topic XVIII : *Discussion of Comparison.* (E311-16; T172-76)

45-46 : *Opponent* : Comparison is not an instrument of knowledge, whether the similarity which is supposed to license it is perfect or

merely partial. *Answer*: The similarity in question is of whatever degree given in experience.

47-49: *Opponent*: Comparison is a kind of inference, not a separate instrument of knowledge, for it gives us knowledge of what is not perceived on the basis of what is. *Answer*: In comparison we draw a conclusion about one perceived thing on the basis of another perceived thing.

Topic XIX : *General Examination of Verbal Testimony.* (E316-26; T175-83)

50-57 : *Opponent* : Verbal testimony is a kind of inference, because its object is unperceived, and because there is the same kind of connection between the instrument and its object as in inference. *Answer*: No; although in both inference and verbal testimony the object is unperceived, in the latter we depend for knowledge not on words in general but in particular upon the teaching of a reliable person. As to the second part of the objection, the connection in inference between sign and signified is a natural relation, while that of word to object in verbal testimony is conventional and not everywhere the same.

Topic XX : *Reliability of Scripture.* (E327-41; T184-91)

58-69 : *Opponent* : Scripture is not an instrument of knowledge, for it is untrue, self-contradictory, and counsels the uttering of tautologies. *Answer* : No. The appearance of untruth comes rather from a defect in the agent or in his action; the appearance of self-contradiction arises because the Vedas sometimes offer of a choice of appropriate actions; and the tautologies are in fact useful repetitions. If we divide scriptural statements into injunctions (*vidhi*), descriptions (*arthavāda*), and reinculcations (*anuvāda*), we will not be confused. Further, the trustworthiness of the scripture derives from the trustworthiness of its expositor, as in medical texts.

BOOK TWO : PORTION TWO

Topic XXI : *Defence of the Fourfoldness of the Instruments of Knowledge* (E348-59; T195-201)

1-2 : *Opponent* : The following should be added to your list of instruments of knowledge : tradition (*aitihya*), presumption (*arthāpatti*), concurrence (*sambhava*), and negation (*abhāva*). *Answer* : No. Tradition is included in verbal testimony, and the other 3 are included in inference.

3-12: Discussion of the validity of presumption and negation. Gautama attempts to show confusion in the opponent's reasoning.

Topic XXII : *Sound Is Noneternal.* (E362-92; T202-23)

13-21 : Gautama's positive arguments for the thesis that sounds are noneternal are (1) because they have a beginning; (2) because sound is grasped by a sense organ; (3) because sound is spoken of as a product; (4) because sounds are not experienced prior to their being produced; and (5) because we do not experience anything to explain our not perceiving a sound before it is produced.

22-29 : *Opponent's rebuttal* : Sound *is* eternal, (1) because it is intangible; (2) because of traditional teaching; (3) because of repetition; (4) because we experience no cause of the destruction of sound; and (5) because the substratum of sound is intangible. These arguments Gautama rejects.

Topic XXIII : *Changes in Suffix in Sanskrit Word Combination* (*saṃdhi*) *Are Substitutions, Not Modifications.* (E395-416; T225-40)

40-60 : The opponent argues that when, for example, in Sanskrit *dadhi atra* becomes *dadhyatra*, the final "i" is transformed into "y." Gautama argues that it is not so, for a number of reasons. The discussion brings out some interesting facets of Gautama's thinking about the transformation model for causal relations.

Topic XXIV : *The Meaning of Words.* (E418-29; T241-50)

61-71 : Three theories are advanced : that the meaning of a word is (1) the individual (*vyakti*) — a piece of material (*mūrti*) with its differentiating qualities; (2) the *ākṛti* — the characteristics by which we recognize the presence of a property; (3) the universal property (*jāti*) — which begets the same idea from use to next use of a word. The first theory is rejected because it involves an infinite regress and because words have meaning even when there is no individual directly denoted. The second theory is not treated here. The third theory is criticized on the ground that the presence of the universal depends on the presence of the individual and the *ākṛti*. The conclusion Gautama reaches is that the meaning of a word consists in its relation to all three — individual, *ākṛti*, and universal.

BOOK THREE : PORTION ONE

Topic XXV : *The Self is Not the Sense Organs* (E433-60; T252-84)

1-3: The self is not identical with the sense organs, because we can grasp one object by more than one sense,

4-6 : A second reason is stated ambiguously, but has something to do with sin (*pātaka*) and death.

7-11: A third reason is that since what was seen by one eye is recognized by the other, there must be a self beyond the sense organs. An opponent contends that in fact there are not two eyes at all, but rather one field of vision divided by the nose. This is refuted by reminding us that we can lose an eye without losing our sight.[11]

12-14 : A fourth reason is that one sense can excite another; thus there must be a self to provide the basis of the memory which accounts for this. The opponent tries to locate memory in the object remembered, but this is rejected.

Topic XXVI : *The Self Is Not the Internal Organ*. (E460-77; T268-84)

15-17: An opponent argues that the internal organ can do everything selves are adduced to do. Gautama replies that this is a verbal matter : whatever it be called, there must be a locus for judgments.

18-26 : Gautama argues that there must be a self to explain the reactions of a new-born child, for the only conceivable explanation of those reactions is that the child remembers former experiences. An opponent claims that the child's reactions are mechanical, but this is rejected on the ground that the mechanical modifications of the physical elements require conditioning factors which are absent in the case of the child.

Topic XXVII : *The Body*. (E481-85 ; T287-90)

27-31 : Several views about the nature of the body are listed. The commentators take it that the first view, to the effect that the body is made of earth, is Gautama's own, and that he rejects the others, which make out that the body is made of several elements in combination. The last line (III.1.31) appears to justify the Nyāya view by appeal to scriptural authority.

Topic XXVIII : *The Sense Organs Are Elemental* (*bhautika*). (E487-507; T291-306)

32-34 : The issue is raised as to whether the sense organs are not nonelemental after all, since how can a sense organ produce perception even when the eye is at a great distance from the object ? Furthermore, since the eye can grasp both large and small objects, it cannot be elemental. Gautama's answer is that, nevertheless, the eye is elemental; it is rather the ray (*raśmi*) issuing from the eyeball that grasps objects close and far away, large and small.

3-539 : An objector complains that the contact between ray and

object cannot be the cause of perception, for we do not see any such ray. Nevertheless, replies Gautama, the ray may exist and be knowable through inference; the reason we do not perceive the ray is that it lacks sensible qualities.

40-44 : Other ways to explain why we do not perceive the ray are explored and rejected. It is not that the ray has color but we do not see it (like the color of the stars) during daylight hours, because we do not see it at night either. But we do observe that night-prowlers can see in the dark, and this shows that they have rays too.

45-51 : An opponent seeks to show that perception does not require contact of sense with object, and thus that the hypothesis of a ray is gratuitous. He cites our seeing things in mirrors or screened by transparent objects, where contact can only occur between the glass and the hypothetical ray. The reply is that there is contact between ray and object in the cases cited, unlike other cases where opaque objects preclude perception. The ray goes through certain substances, e.g., when we see a fire through a piece of glass. It is just a fact that some things are transparent and others opaque.

Topic XXIX : There Is More Than One Sense Organ. (E508-18; T308-61)

52-60 : Opponents argue that there is only one sense organ because none of the others are different from the skin, and because the objects of all the senses have the same character, namely objectness, and so there is need of only one sense organ to grasp things with this character. The first argument is answered by pointing out that if it were correct, we should have simultaneous touch, sight, hearing, etc. of every object; the blind could see. But this is not the case. The second argument is answered by specifying the varying characters of the several objects of the several senses. There are just five senses because there are just five kinds of objects for them.

Topic XXX : Specific Constitution of Sense Organs and Their Objects. (E522-37; T318-30)

61 : Each sense organ is composed primarily of the kind of stuff it grasps; thus the eye is made primarily of light, the ear of *ākāśa*, etc.

62-63 : The special sense-qualities of the 5 elements are as follows:

Elements	*Sense-Qualities*
earth	touch, color, taste, smell
water	touch, color, taste
fire (or light)	touch, color

air	touch
ākāśa	sound

64-68 : *Objector* : The above account is wrong, for each element is only found to have one quality as its special characteristic, and the explanation for water's having touch, for example, is that water is intermingled with earth. *Gautama's reply is* : No indeed ! for if your view were correct, how could we see earth or water ?

69-73: Gautama adds several bits of information about the senses. Though some elements have several qualities, the sense organs, which are primarily characterized by one quality, each perceive their corresponding elements because of their peculiar proportion. A sense organ, properly so-called, is a substance together with its appropriate characteristic (which is why, say the commentators, a sense organ cannot perceive its own characteristics). In any case, a thing is never grasped by itself. An objector points out that Gautama holds that the ear perceives its own quality, namely sound. Gautama's answer is that the case of sound is different.

BOOK THREE : PORTION TWO

Topic XXXI: *Judgment Is Noneternal.* (E540-51 : T332-40)

1-3 : The question of the eternality of judgment arises from the fact that judgment shares qualities both with *karma*, which is transitory, and with *ākāśa*, which is eternal. An opponent claims that judgment is eternal because we recognize objects, but this is rejected as begging the question; the Nyāya view is that the self does the recognizing.

4-8 : The next section appears to deal with an opponent who holds that judgment is an intrinsic mode of the eternal self, and thus is itself eternal. This view is controverted because if it were true various senses would operate simultaneously, and when recognition ceases all judgment(s) would cease. The Nyāya explanation for the facts here is rather that the nonsimultaneity of sensory perceptions is due to the activity of the internal organ which moves into contact with each sense in turn, as an eternal self could not do.

Topic XXXII : *Relation of Destruction and Production.* (E554-56; T432-50)[12]

9-12 : Two views appear to be met here. One is the view that the difference among our ideas is a result of the differences among their objects, though the stuff of consciousness remains the same. The other is the view that at every moment each thing is destroyed and a new thing arises in its place. The true view, says Gautama, is that

some things really do decay and grow gradually and that the destruction of one such thing is regularly linked with the production of the next. E.g., when milk is destroyed, curd arises.

13-17: Alternative views about milk and curd are considered and rejected. One view is that since we do not see the final decay of the milk we cannot justify the supposition that there is any link between milk-decay and curd-production. The answer is that we do perceive the final decay of milk — it occurs when the sweet flavor disappears. A second view is that the milk is not destroyed at all but merely exchanges its sweet quality for sour. The Nyāya answer is that we can infer the destruction of milk from similar instances.

Topic XXXIII : The Locus of Judgments Is the Self. (E569-629; T352-89)

18 : Judgments do not reside in the senses, because we can entertain a judgment without the senses operating.

19-21 : And judgments do not reside in the internal organ, because the internal organ is the cause of judgments not being simultaneous.

22-24: An opponent complains that judgments cannot be produced or destroyed on Gautama's view since, inhering in an eternal substance, they must be eternal themselves. But, replies Gautama, judgments are seen to be noneternal, and the problem of how an eternal substance can have noneternal qualities is mitigated by recalling that the case is likewise with sound and *ākāśa*.

25-33 : Memories, argues an objector, are not simultaneously produced in one knower; this cannot be explained in the Nyāya view but only by supposing that the internal organ comes into contact with a part of the self — but then the self must have parts and so be noneternal. No, says Gautama: that is not the reason memories are not simultaneous. Memory requires an effort of attention, different judgments of characteristic properties, etc., and since these do not all occur simultaneously memories do not either.

34-37 : As to these efforts (of attention), an objector contends that their causes, namely desire and aversion, belong to the body, and therefore the locus of judgments should also be taken to be the body. The answer is that although axes are sometimes impelled to cut down trees and sometimes not, we do not attribute desires and aversions, or for that matter judgments, to them.

38-39 : Additional reasons why the internal organ is not the self: because the internal organ is dependent (*paratantra*), and because one person cannot inherit another's *karma*.

40-41 : Memory belongs to the self, because the self is the thing which has the capacity to "cognize." Twenty-odd kinds of causes for the awakening of memories are suggested.

42-46 : A judgment is transitory because actions are transitory. An opponent argues that if this were true we could never know an object as manifest (*vyakta*). Gautama answers that just as we get a complete picture of an object in a momentary flash of light, so although a judgment dies it gives an adequate account of its object.

47-55 : Judgment is not a natural quality of the body as color, etc., are. An opponent disagrees, because sometimes a substance's natural qualities are destroyed, e.g., when the pot is baked its original blue color becomes red. The answer is that nevertheless coloredness is a natural property of the pot, even though blue color is not, and furthermore baking produces a contradictory color, while death does not produce another contradictory kind of judgment.

But, the opponent continues, judgment is a natural quality of the body because it pervades the body. No, says Gautama, for it is not found in certain parts of the body.

Topic XXXIV : There Is Only One Internal Organ for Each Self. (E631-35; T390-92)

56-59 : Each self has exactly one internal organ, and we infer this because of the nonsimultaneity of judgments. This is challenged by an opponent, but he is answered by appeal to the example of the wheel of fire (*ālātacakra*). This also shows that the internal organ is minute (*aṇu*) in size.

Topic XXXV : The Body Is Produced by One's Karma. (E636-56; T394-404)

60-65 : An objector argues that the body is produced from the elements like a statue from stone. The analogy is not apt, claims Gautama, for a body needs a father and mother, food, etc., and not all unions between the sexes issue in childbirth, which shows that the child's *karma* is operative as well.

66-72 : *Karma* also causes the union of self with body. If one tries to hold that it is produced by *adṛṣṭa*, he will be unable to explain why the self is not reattached to a body after release. Nor can the *karma* be located in the internal organ, for then the body could never separate from the internal organ; both would have to be held to be eternal. A last try by the opponent: in release the body disappears into eternal blackness, which is why it does not reappear. No, says Gautama, there is no proof for that.

BOOK FOUR : PORTION ONE

Topic XXXVI : *Defects.* (E661-69; T409-13)

1-9 : There are three kinds of defects : (1) affection (*rāga*), (2) aversion (*dveṣa*), and (3) confusion (*moha*). An opponent tries to reduce them to one, but is refuted. Confusion is identified as the worst of the three, because its presence is a necessary condition for the presence of the other two. An opponent tries to draw from this the inference that confusion is not a defect, but this is rejected.

Topic XXXVII : *Causation.* (E670-88; T414-25)

10-13 : Production of a manifested thing is from another manifested thing, just as a jar is produced from its halves.

14-18 : An objector argues that a thing is produced only after its cause is destroyed, since without destroying something nothing can come to be. This is inconsistent, retorts Gautama, because the thing which destroys the cause (namely the effect) must exist in order to do the destroying, and by the opponent's hypothesis it does not exist yet. However, it is allowable to say that the qualities of the cause are destroyed in the production of an effect.

19-21: An objector argues that God (*Īśvara*) is the cause of the production of things, because man's acts do not always issue in appropriate fruits. The reply is that in any case man's acts are a necessary, though possibly not a sufficient, condition for fruits.[13]

22-24: An objector suggests that things are produced without any instrumental (*nimitta*) cause whatsoever ; things just are productive by nature. Gautama's answer suggests that the opponent is trying to make causelessness itself a cause, which will not do.

Topic XXXVIII : *Some Things Are Eternal and Others Non-eternal.* (E689-719; T426-42)

25-27: An objector holds that everything is noneternal. Gautama replies that at least one thing is eternal in that case, namely noneternality.

28-33 : Another objector holds that everything is eternal, since the five elements are eternal and they make up everything. The answer is that we see that things are produced and are destroyed.

34-36: Another objector says that everything is separate (*pṛthak*), because they have diverse characteristics. Gautama's answer is that a variety of characteristics can belong to one entity.

37-40 : Still another argues that everything is an absence, because each entity is absent in mutual relation to something different

from itself. Gautama's answer is that every positive entity (*bhāva*) is present in relation to itself (*svabhāva*). The objector, however, denies that things are present in relation to themselves, since they depend on each other for their existence. This is dismissed as self-defeating (*vyāhata*).

41-43 : There is not even any fixed number of things, for it is possible to disprove any cause for there being such a fixed number. No, says an objector : there is a fixed number of parts which is the cause of a fixed number of things. Gautama's answer is that the number of parts is not fixed either.

Topic XXXIX : *Fruits.* (E720-29; T444-49)

44-45 : How can an action have a result after an interval, asks someone, since the cause has long since been destroyed ? Gautama answers that this happens in the same way as when a tree ripens and bears fruit: the cause is the nourishment of the tree, which occurs long before the fruit appears. An objector says that the fruit before it appears has neither being (*sat*) nor nonbeing (*asat*). Gautama replies that it has nonbeing, as everyone can see. The objector turns to attack the analogy of the tree. He points out that the analogy is faulty, since the nourishment is of the same object which bears fruit, while in the case of *karma* one thing is nourished and another bears the fruit. Gautama replies that it is not the body which enjoys the fruit, but the self. Goodness no ! says the objector ; the self cannot be the locus of such results as sons, wife, cattle, etc. These are not the results, says Gautama ; the result is pleasure (*prīti*), and these other items are called results only because the result proper is produced through their presence.

Topic XL : *Pain.* (E732-35 ; T451-52)

55-58 : Birth is painful, for it is attended by various distresses. This account of birth is not contradicted by the fact that we experience pleasures too, for though we experience pleasure we are constantly seeking other pleasures and thus experiencing pain. Furthermore "pleasure" is merely one form of pain itself.

Topic XLI : *Release.* (E737-58; T454-65)

59-68 : An objector says that we can never attain release because scripture tells us we are always bound by debts, troubles (*kleśa*), and activities. Gautama suggests how we ought to read the scriptural passages according to a secondary meaning. Furthermore, we can transfer (*samāropaṇa*) these sources of bondage to the self and so master them. Release is like deep sleep; there are no troubles, just

as the sleeper is without dreams. And one who is untroubled can act without being bound again. Some say that these troubles are natural; others that though they are natural and therefore beginningless, they nonetheless come to an end like the blue color of an atom when it is baked. Gautama answers that since troubles are not natural, but rather caused by one's wishful idea (*saṃkalpa*), one needn't decide among these alternatives.

BOOK FOUR : PORTION TWO

Topic XLII : How Correct Knowledge Destroys Defects. (E765-68; T469-71)

1-3: It is when we see objects as colored, etc., that we come under a misapprehension, and we come to do this by seeing things as wholes rather than parts.

Topic XLIII : Whole and Part. (E770-85; T472-80)

4-12 : An objector argues as follows : There are only parts, not wholes, for a whole cannot reside anywhere nor be the locus of anything. Its parts cannot reside in it as a whole, nor in any part of it. Gautama answers that this criticism rests on a confusion about wholes: we cannot talk about a "part" of a whole because a whole is without parts. The critic misunderstands the relation of residence involved here.

13-14 : We perceive wholes made up of imperceptible parts just as a person with poor sight can see a head of hair though he cannot make out the individual hairs.

15-16 : Do the whole and its parts both continue together, but only up to the end of a cosmic cycle (*pralaya*) ? No, there is no final end to things at that time, for atoms, the ultimate parts, are eternal.

Topic XLIV : Atomic Theory. (E786-95; T481-85)

17-22 : An atom is beyond the minimal perceptibilium (*truṭi*), states Gautama. It is indivisible. But an objector claims that it is divisible since it is penetrated by *ākāśa*. No, says Gautama: *ākāśa*, though it is omnipresent (*sarvagata*), cannot penetrate inside an atom; its omnipresence consists in its being in contact with everything. The attributes of *ākāśa* are that it is not collected (*avyūha*), it is non-obstructive (*avistambha*), and it is all-pervasive (*vibhu*).

23-25 : An objector argues that atoms must have parts, because anything material must have parts, and atoms can have contact

with things. Gautama's answer is that the objector is committed to an infinite regress.

Topic XLV : The Existence of the External World. (E797-801; T486-88)

26-30 : *Objection* : Just as there is no experience of the existence of a cloth when the threads have been separated, so there is no experiencing of the actual nature (*yāthātmya*) of the world, because it is undiscriminated in our judgments. *Answer* : The argument is self-defeating. There is no separate grasping of the locus of a thing, and anyway objects are to be established by instruments of knowledge, and there are no good arguments for the nonexistence of things.[14]

Topic XLVI: The Falsity of Everything Refuted. (E802-11 ; T489-93)

31-37 : An objector contends that both instruments of knowledge and their objects are false like dream objects or like magic (?, *māyā*) or a mirage, or the city of the Gandharvas. The answer is that there is no reason to suppose that these phenomena are not aspects of the natural world; dream objects are on the same plane as memories and imagination; the illusory objects disappear when we know the truth, and are therefore shown to have causes like natural objects. The cause of illusion is that we fasten on an idea as primary which is not the true nature of the thing.

Topic XLVII : The Production and Maintenance of Correct Knowledge. (E814-26; T494-501),

39-51 : Gautama apparently counsels repetition of certain kinds of concentration (*samādhi*) in IV. 2. 38. An objector questions the possibility of concentrating, since we are harried by obstacles. The answer is that by our good *karma* we are impelled to overcome these obstacles by concentrating in a quiet place, etc. By practicing yoga, including purification through restraints, etc., we can train ourselves toward release. An objector claims that even in release we can be distracted by desires, but Gautama denies this, for in release there is nothing which can be distracted.

Gautama also advises repeated grasping of knowledge through conversation with those who are versed in truth, as well as with anyone seeking to better himself, e.g., *gurus*, their pupils, one's fellow-initiates, etc. In fact, one can pursue knowledge without the usual necessities like an opponent to argue with, and one can even employ dubious procedures like sophistry and cavil to make oneself more zealous for truth and to protect it.

BOOK FIVE : PORTION ONE

Topic XLVIII : *Kinds of Futile Rejoinders.* (E828-88; T503-37)

1-43 : Twenty-four kinds of futile rejoinder are detailed in the first *sūtra*. The subsequent text further divides these and apparently gives advice as to how to meet these irrelevant rejoinders. What the section amounts to is a review of various ways in which the example may fail to prove the pervasion required for an inference to be successful. This supplements the discussion of fallacies of the reason, the combined account covering in a somewhat unsystematic way the various manners in which inferences can fail the requirements of validity.[15]

BOOK FIVE : PORTION TWO

Topic XLVIX : *Ways of Losing an Argument.* (E891-918; T540-54)

1-24 : Some 22 kinds of losing an argument are detailed in the first *sūtra*. The subsequent texts review various sorts of incoherence, evasions, etc. The last item in the list is "fallacies of the reason," so that one can claim that in this fifth book all ways in which an inference can fail have been listed.

3. VĀKYAKĀRA 4. KAṬANDĪKĀRA

It is probable that several commentaries were written on the *Vaiśeṣikasūtras* in the period prior to Praśastapāda's at the end of the 6th century. No such commentaries have been preserved, but in Mallavādin's *Nayacakra*, a work of the 5th century, we find references to a commentary on the *Vaiśeṣikasūtras* called *Vākya*, on which we are told there was a *Bhāṣya* in turn. A work called *Vaiśeṣikakaṭandī* is twice referred to by Mallavādin, who describes it as "an elaborate work based on the *sūtras* of *Kaṇāda*." This *Kaṭandī* is also mentioned in Murārimiśra's *Anagharāghava*, where Rāvaṇa is said to be well-versed in *Vaiśeṣikakaṭandī*.[1] Anantlal Thakur, to whom we owe these investigations into now forgotten Vaiśeṣika authors and works, suggests that the *Kaṭandī* may have been a commentary on the *Vākya*, perhaps even identical with the *Bhāṣya* mentioned by Mallavādin.[2] Kuppuswami Sastri, however, suggests identifying the *Kaṭandī* with the so-called *Rāvaṇabhāṣya*, still another lost commentary which is referred to in several later texts.[3] Thakur, on the other hand, attributes the *Rāvanabhāṣya* to Ātreya and since he dates Ātreya after Praśastapāda, who is said to have written a commentary on *Kaṭandī*, he cannot identify them.[4] It is unlikely we will have a very clear

idea about all this unless we should happen upon a manuscript of one or more of these lost works. And we have no idea what new doctrines the writers of these works might have introduced into the system.

5. VĀTSYĀYANA (PAKṢILASVĀMIN, DRĀMILA)

According to Vācaspati Miśra, the given name of the author of the *Nyāyabhāṣya* was Pakṣilasvāmin; Vātsyāyana is a patronymic.[1] Vidyābhūṣaṇa tells us that he is sometimes called Drāmila or Drāviḍa, suggesting that he came from the south.[2] Estimates of his date range from as early as 600 B. C.[3] to as late as 539. A.D.[4] The latter date seems to have some merit, although Ingalls gives the date as the 3rd century on the grounds of Vātsyāyana's apparent lack of acquaintance with Yogācāra philosophy as well as his archaic sytle.[5] Oberhammer's reasons for dating Vātsyāyana in the second half of the 5th century are based on his opinion that Vātsyāyana knew Vyāsa's *Yogabhāṣya* and the Sāṃkhya writer Vindhyavāsin.[6] We hazard A.D. 425 to 500, then, as an approximation.

The *Nyāyabhāṣya* is not only the first commentary on the *Nyāyasūtras* that is still extant, it is also the first to which we find any reference. However, some scholars have questioned whether all of the text is in fact the work of Vātsyāyana. Ernst Windisch argues that there is an old *Vārttika* mixed up with the *Bhāṣya*, and dates this *Vārttika* around 200 B.C. because of its similarity with the *Mahābhāṣya* of Patañjali.[7] That Vātsyāyana was a close student of the *Mahābhāṣya* has been demonstrated by Paranjpe.[8] Windisch's date is hard to accept, since it would involve pushing back the date of Gautama to a very early time indeed. Some Indian scholars who are independently convinced of the antiquity of the *Nyāyasūtras*, such as Ganganatha Jha,[9] accept Windisch's conclusions. But H.N. Randle has argued against the "hidden *Vārttika*" theory at length, pointing out that what Windisch interprets as a commentary can more plausibly be construed as *sūtra*-like material of origins unknown to Vātsyāyana. Randle thinks that Vātsyāyana was faced with "a mass of material.. which existed largely in *sūtra* form" and had no *sūtrapāṭha* to go by, so he identified some of what he had as *sūtra* and treated the rest with respect.[10]

NYĀYABHĀṢYA

(Summary by Karl H. Potter)

The topics into which this summary is arranged correspond to those used in summarizing the *Nyāyasūtras* above; comments should be read in conjunction with the summary of the relevant *sūtras*. The translation used is the same as in the case of the *Nyāyasūtras* above (B264(2)); the edition is that of Ganganatha Jha, Poona Oriental Series 58, 1939 (B264(1)).

BOOK ONE : PORTION ONE

Topic I : Subject Matter and Purpose.

Introductory Section (E1-2; T1-3). Fruitful activity only occurs when an object is known through an instrument of knowledge. Now objects are of 4 kinds : pleasure, a cause of pleasure, pain, and a cause of pain. There are innumerable objects since there are innumerable living things. When an instrument of knowledge possesses its object, the knower, the object known, and the resulting judgment are all successful. The nature of things (*tattva*) is a function of all 4 of the above. That nature consists in the being (*sat*) of existents (*sadbhāva*) and the nonbeing (*asat*) of nonexistents (*asadbhāva*).

But how can things which do not exist be known through an instrument of knowledge? Through the nonapprehension (*anupalabdhi*) of nonexistents when existents are apprehended. Things which are not (present) are known by the same instrument of knowledge as would identify them if they were (present). The first *sūtra* lists the types of existents.

1. (E2-8; T4-12) *Objection*: Since doubt, etc. (i.e., the categories following doubt in Gautama's list) are either instruments or objects of knowledge we do not need to list them separately. *Answer*: Since Nyāya is the specific science of argument it must treat of its subject matter here. Otherwise it would appear that Nyāya deals only with the self, like the Upaniṣhads. But if the objector questions that the third to sixteenth categories belong in the proper purview of Nyāya, Vātsyāyana satisfies this doubt also. Each additional category has a special place in the science of Nyāya. *Doubt* is that which precedes inquiry. There is no *purposeless* inquiry (though Vātsyāyana has misgivings about this, especially in the case of sophistry). Inference and verbal testimony require the presence of an *example*. Discussion, etc., only occur when some *tenets* are held. Successful reasoning involves the *members of an inference*. *Tarka* helps

the instruments of knowledge. Inquiry aims at *ascertainment.* Discussion leads to ascertainment when properly carried out. The rest of the categories show how to avoid improper discussion.

2. (E8-9; T12-15) Vātsyāyana spells out how each member of the chain of five given in the *sūtra* is a condition for the one following. Defects are actions which lead to demerit. Activity includes meritorious and demerit-earning action, however, and produces accordingly honorable or despicable birth.

Topic II : The Instruments of Knowledge

Introductory Section (E10; T15-16). The activity of the science of argument consists in statement (*uddeśa*), definition (*lakṣaṇa*), and examination (*parīkṣā*). Statement is naming the category; definition is giving that property which demarcates that which has been stated; and examination is inquiring whether or not the definition is correct.

3. (E10-12; T6-18) Vātsyāyana gives his own preliminary account of the instruments of knowledge. *Question* : Does each instrument grasp mutually exclusive objects, or can several instruments grasp the same object ? *Answer* : Sometimes their objects are exclusive, sometimes they are not. Perception is the most important of the four, because it alone is self-sufficient to allay doubts.

4. (E12-16; T18-25) The *sūtra* divides the definition of perception into four parts. Objections to each part of the definition are considered. (1) Objector : Though the *sūtra* mentions only sense-object connection, the internal organ must also be in connection with the sense organ for perception to occur. Why is such connection not mentioned ? *Answer* : A definition does not supply all necessary conditions but only the distinguishing cause. (2) Objector: There is no *avyapadeśa* perception, since every cognition produced by sense-object connection is expressed in words and is therefore inseparable from words. *Answer* : (a) Sometimes we do not know a word for an object perceived. (b) Even when we do know a thing's name, we do not identify the thing with its name or suppose that it could not exist without a name, and our idea of it is no different from the idea we had of it when we did not know its name. Naming is useful for communication and manipulation, and only comes in when these purposes are in point. (3) In order to exclude the "perception" of water in a mirage the *sūtra* says that perception "does not wander." (4) In order to exclude doubting sense reports (e.g., "this is either dust or smoke") the *sūtra* requires that a perception be "well-defined."

Objection : Perception as here defined does not include perception of the self or of pleasure ; hence it is defective. *Answer* : The internal

organ, which grasps those objects, is a sense organ, although differing from the other sense organs by being nonelemental, effective with respect to all kinds of objects (instead of specific sorts for each of the other sense organs), and not needing to grasp particular qualities in its object (whereas the other senses grasp their objects through those particular qualities). That the internal organ is a sense organ is taught in other systems, and when another system's teaching is not denied it is meant to be accepted.

5. (E16-19; T25-28) Inference "follows on perception"—i.e., perception of the relation between *sādhya* and *hetu*, together with perception of the *hetu* and memory of the previously perceived relation, join to produce inference.

Vātsyāyana offers two separate explanations of the rest of this *sūtra*. (1) *Pūrvavat* is inference of effect from cause, from clouds to subsequent rain. *Śeṣavat* is inference of cause from effect, from swollen river to earlier rain. *Sāmānyatodṛṣṭa* is inference from general correlation, as the inference that a thing has moved since it is located in a different place than before. (2) *Pūrvavat* is inference of one of two things perceived together before from the present perception of the other one, e.g., of fire from smoke. *Śeṣavat* is inference through elimination, as in inferring that sound is a quality by eliminating the other possible categories. *Sāmānyatodṛṣṭa* is inference from the similarity of the *sādhya* to something else which is known to be correlated with the *hetu*, as in inferring that desire inheres in the self by remarking that desire is a quality and all qualities reside in substances.

Perception only grasps present objects, while inference grasps objects in the past, present, and future.

6. (E19-20; T28-29) An example of comparison is "the word *gavaya* is the name of this object" when one is confronted with an animal which resembles a cow and recalls being told that the *gavaya* is like a cow.

7-8. (E21-22; T29-31) A person is "reliable" if he has direct knowledge and is desirous and capable of speaking about the object as he knows it. This applies not only to sages (*ṛṣi*) but also to ordinary people both here (*ārya*) and in foreign parts (*mleccha*).

Topic III : The Objects of Knowledge

9. (E22-23 ; T31-33) Vātsyāyana reviews the account of the twelve objects of knowledge. He adds that there are other objects, e.g., those listed in the Vaiśeṣika set of categories, but that the *sūtra* has only listed those objects whose knowledge leads to release and the wrong judging of which leads to bondage.

10. (E23-24; T33-36) Selves cannot be known by perception, but they can be known by inference from the marks which the *sūtra* lists. The main argument for the existence of a self is of the following sort : desire, etc., would not be possible if there were not a persisting subject to remember previous pleasures and pains and to utilize this remembered difference in choosing objects now.

11. (E25; T36-37) This *sūtra* identifies three marks of the body. The body is the locus of the gestures exerted by the self urged by desires ; it is that whose benefit helps the sense organs and whose injury injures those organs ; it is the abode of the pleasures and pains produced by the contact of objects with the sense organs, and is therefore the locus of those objects.

12-14. (E25-27; T37-40) Because the organs proceed from distinct elements they are restricted to particular kinds of objects; the fact that they are restricted in this way cannot be explained if they are supposed to stem from a single source.

15. (E28 ; T40-41) Some say that judgment is the operation (*vṛtti*) of the *buddhi*, which is unconscious (*acetana*), and that experiencing is the operation of something conscious but nonactive. But judgment cannot belong to an unconscious *buddhi*, for then the *buddhi* would be a conscious entity—and there is only one seat of consciousness.

16. (E29; T41-42) The *sūtra* gives one reason why we must postulate an internal organ. In addition, it must be accepted as the sense organ peculiarly involved in memory, inference, knowledge gotten from verbal testimony, doubt, intuition (*prātibha*), dream, and imagination (*ūha*), as well as in the perceptions of pleasure, desire, etc.

17. (E29-30; T42) "Judgment" in this *sūtra* actually refers to the internal organ.

22. (E32-37; T46-52) Release is a state of being free from fear, undecaying and immortal; it is also called "Brahman" and consists in attaining bliss. Some argue thus : In liberation (*mokṣa*) there is manifested eternal pleasure of the self, like its bigness (*mahattva*). But there is no proof for this view. Furthermore, one who argues thus must say whether the experience of eternal pleasure is itself eternal or not. If it is eternal, then there is no difference between a liberated self and one not liberated. If it is not eternal then the proponent of this view must identify the cause of the manifestation of eternal pleasure. If he says that the cause is the contact between internal organ and the self, he must mention auxiliary conditions. Suppose one should say that the merit produced by yogic contemplation is the auxiliary condition ? But since whatever is produced has

an end, this merit, being a product, must come to an end. Therefore it cannot be the auxiliary condition in question. And if merit be held to be eternal, then again there is no difference between a liberated and an unliberated self.

Topic IV : The Preliminaries of Argument

23. (E37-39; T53-56) Vātsyāyana interprets Gautama's obscure *sūtra* to say that there are 5 kinds of doubt. (1) When we are not sure which of several objects we are cognizing because we do not cognize the differentia of any of them, but we do cognize characteristics common to all; e.g., when we are not sure whether what we see is a post or a man. (2) When we are not sure because we cognize characteristics of a thing which do not differentiate this object sufficiently; e.g., when we find sound to have the property of being produced by disjunction, but this property does not suffice to tell us whether sound is a substance, a quality, or a motion. (3) When there are contradictory opinions about a thing, each of them unsupported by proof. (4) When we perceive a thing and are not necessarily sure of all its characteristics; e.g., when we perceive water and do not know whether it is existent as in a tank or nonexistent as in a mirage. (5) When we do not perceive a thing and are therefore in doubt about its characteristics; e.g., when we fail to perceive water we do not know whether it is existent or nonexistent water we fail to perceive.

Topic V: The Nature of Tenets

26-31. (E41-43; T57-61) Vātsyāyana explains Gautama's 4 varieties of tenets thus : (1) doctrines common to all philosophical systems; (2) doctrines peculiar to one system (examples credited to "Sāṃkhyas" and "Yogas" are given); (3) doctrines whose truth rests on acceptance of their implications ; (4) doctrines taken for granted as a basis for investigation. Vātsyāyana thinks the last kind of tenet is an indulgence.

Topic VI : The Nature of an Argument

32-38. (E44-50 ; T61-69) *Objection* : In addition to the five members of an inference given in the *sūtra* there are five more, namely : desire for knowledge, doubt, possibility of proof, purpose, and removal of doubt. These should be included as well. *Answer* : These five are propedeutic to knowledge but not members of an argument as such since they do not in themselves tend to bring about true knowledge.

To illustrate the five members of an argument, Vātsyāyana offers the following :

Hypothesis :		Sound (is) noneternal
Reason :		because sound (is) a product, and it is seen that products are noneternal and that that which is not produced is eternal
Examples :	(1)	(positive) like a dish, a cup, or the like ;
	(2)	(negative) unlike self, etc.
Application :		sound is so (i.e., a product, on the basis of the positive example) ; sound is not so (i.e., not nonproduced, on the basis of the negative example)
Conclusion :		(therefore) sound (is) noneternal

In the commentary on *sūtra* 36 the question is raised as to how the *pakṣa*, sound, can be similar to the *hetu*, being-a-product, since the former is an individual and the latter a property. Vātsyāyana seems to say that the example (e.g., a dish) is a thing in which two properties — the *sādhya* noneternality and the *hetu* being-a-product — both reside, and that it is this fact which constitutes the similarity.

39. (E51-52; T70-73) Vātsyāyana analyzes the instruments of knowledge involved in an argument, which he claims cooperate in producing the conclusion. (1) The hypothesis is given to us by a sage. (2) The reason is given to us by inference from the concomitance of the *sādhya* and *hetu* in the positive example. (3) The positive example is given to us by perception. (4) The application is given by comparison. (5) The conclusion is produced through the combination of all the four instruments of knowledge.

Topic VII : Nature of the Subsidiary Processes in Proving an Argument

40. (E52-54; T73-76) As an example of *tarka* Vātsyāyana offers this argument, intended to prove that the knower (*jñātṛ*) is beginningless: "if the knower had a beginning, then the body, etc. which it has at the beginning is not the result of past *karma*; furthermore, since whatever is produced is destroyed, the knower would cease; and both of these conclusions run counter to the possibility of release; therefore the knower must be beginningless."

This *sūtra* says that *tarka* is brought into play in order to know the true nature of an object, but an objector asks why *tarka* is not the very true knowledge desired ? *Answer* : Because *tarka* in itself is indecisive; it does not in itself prove a conclusion but bolsters the instruments of knowledge which themselves must do the proving.

41. (E54-56; T76-79) *Objection*: Ascertainment is not, as Gautama asserts, the result of considering two opposing views, but rather the result of considering one view, the correct one. In a discussion both sides offer their arguments, and this goes on until one side gives up; when this happens, it is the arguments of the winner which produce the result. *Answer* : No, for the conclusion of the discussion comes only when not only is the winner's tenet proved but the loser's tenet disproved.

Vātsyāyana also notes that what appear to be two contradictory positions may not be so upon closer inspection. There is no real conflict unless two contradictory properties are predicated of the same thing.

BOOK ONE : PORTION TWO

Topic VIII : *Controversy*

2. (E59-60; T83-85) *Objection*: Quibbling, futile rejoinder, and the ways of losing an argument are never used to support a position but only to condemn another's. *Answer*: Though condemning, quibbling, etc. may serve a direct means, in supporting also they may serve, if only as an indirect means. Quibbling, etc., have as their proper use the guarding of one's own views by attacking those of the opposition.

Topic IX : *Fallacies of the Reason*

4-9. (E60-66; T86-96) The 5 kinds of fallacies are explained by Vātsyāyana as follows:

(1) *Savyabhicāra*. *Example*: "Sound is eternal, because it is intangible, like a pot." But atoms are tangible and eternal; and judgments are intangible and noneternal. This nonconcomitance between the *hetu* and *sādhya* vitiates the inference.

(2) *Viruddha*. This occurs when a hypothesis propounded by someone contradicts a doctrine already accepted by him. Thus someone who argues that the world is a modification (*vikāra*) and no modifications are eternal, and also that the world continues to exist since it cannot be utterly destroyed, is contradicting himself.

(3) *Prakaraṇasama*. *Example* : "Sound is noneternal, because of the nonexperiencing of eternality in noneternal things, like a dish, etc." But since there is nonexperiencing of noneternality also, this puts both claims (that sound is eternal and that it is not) on the same footing, and leaves us in doubt.

(4) *Sādhyasama*. *Example*: "Shadow is a substance, because

it possesses motion." But it is not shown that shadows move; it is equally possible that they do not.

(5) *Kālātīta*. *Example*: "Sound is eternal, because it is manifested by contact, like color." Here the contact (between light and jar) which produces color is of a different sort from the contact which produces sound; the former sort continues as long as the color lasts, while the latter sort is destroyed before its effect appears. This is not the same explanation as others give of this fallacy. Others suppose that *kālātīta* means a *hetu* offered before the *sādhya*, but Vātsyāyana avers that this would not vitiate its power to prove the *sādhya*, because of the rule that when two things are (really) connected their remoteness does not destroy the connection.

Topic X : *Quibble*

12. (E67-68; T97-99) The example of verbal quibbling is untranslatable but turns on the ambiguity of the Sanskrit word *nava* which means both "new" and "nine," so that one who says "the boy has a new blanket" is construed as saying that he has nine blankets! Vātsyāyana urges that in such cases one must take the context into account, and applies that principle to more difficult cases, such as the ambiguity between the distributive and collective senses of a word (particularly troublesome in Sanskrit, which has no articles, so that one who says "take goat to the village" may be construed as ordering either that one or that all the goats are to be taken).

13. (E68-69; T99-101) *Example* (of the second type of quibble): "Learning is natural to a Brahmin," says someone, which is met by showing that there are unlearned Brahmins. The way to meet the quibble of the reply here is to show that the quoted statement was not an assertion but a eulogy of Brahmins.

14. (E69-71; T101-04) *Example* (of the third sort of quibble) : "The platforms are shouting." Here the primary sense gives nonsense, so it must be interpreted in a secondary sense to mean that the men on the platforms are shouting, providing that that was the intention of the speaker.

15-17. (E71-73; T104-07) An objector points out that the third type is a special case of verbal quibbling (type 1), being a play on words. Vātsyāyana answers that types 1 and 3 are, of course, similar but they are also different; if similarity were all that were of interest than all three, being similar, could be identified.

BOOK TWO : PORTION ONE

Topic XI : Discussion of Doubt

1-5. (E73-75; T107-10) Vātsyāyana finds several opponents' views set forth in these *sūtras*.

Here are 4 ways of interpreting the objection in *sūtra* 1. (1) Doubt does not arise from the presence of common properties, but from the cognition of these properties. (2) Doubt does not arise from cognizing two things as sharing a property. (3) Doubt does not arise when we ascribe the common properties to one thing only, e.g., if we ascribe "coiledness" to a snake, no doubt arises about the rope. (4) If we are convinced that the common properties apply to one thing, no doubt arises about its possibly applying to another.

Here are 2 ways of interpreting the objection in *sūtra* 2 : (5) Doubt does not arise from either contradictory opinions or from uncertainty about a thing's characteristics, but rather from one's cognition of contradictory opinions or of uncertainty. (6) Nor does it arise from the cognition that some people think one thing and others the opposite, nor from the realization that there is no certainty that a thing has a given property together with the realization that there is no certainty that a thing does not have that property.

Glossing *sūtra* 3 : Since each of the two proponents of contradictory theses is certain about his own thesis, if doubt were to arise from this there would be the absurdity that doubt arises from certainty.

Glossing *sūtra* 4 : If the uncertainty a person has about the nature of a thing is itself certain, then doubt cannot arise; and if it is uncertain, then it is not real uncertainty and again doubt cannot arise.

Glossing *sūtra* 5 : If doubt arises from common properties, then as long as those properties persist doubt should persist.

6-7. (E75-78; T111-16) Vātsyāyana's answers to these objections are mostly concerned to show that Gautama's definition specifies the aspects the objectors find missing, e.g., with respect to (1), the fact that it is from the cognition of common properties, and not merely their existence, that doubt arises.

Topic XII : Instruments of Knowledge[11]

11. (E80-81; T119-23) In addition to Gautama's reply to the objection treated here, Vātsyāyana offers this: if one claims that a word can be applied to an object only after its object has appeared, much ordinary usage would be impossible.

16. (E84-85; T129-30) Gautama is here showing that the same

object can be an instrument of knowledge with respect to one thing and an object of knowledge with respect to some other instrument. Vātsyāyana generalizes this point and illustrates it by pointing out that each of the case relations (*kāraka*), i.e., nominative, genitive, dative, etc., indicates a different relation of a thing to other things. E.g., the same tree is the subject of the verb "stands" (nominative), from which a leaf falls (ablative), on which birds sit (locative), etc. Thus a case relation is not a name of the substance tree, nor the action specified by the verb, but rather a name of the thing in its capacity to bring about the action.[12]

19. (E86-88 ; T133-36) To explain Gautama's example of the lamp, Vātsyāyana says : Lamplight helps one to see a table, and is thus an aid to perception, but it is also perceived itself, and so is at the same time an instrument of knowledge and known by the same kind of instrument. Just so one perception can be both an instrument of knowing its object and also known by another perception. In this way there is no infinite regress of instruments of knowledge ; even though it is true that one perception cannot know itself, it does not follow that a perception must be known by something nonperceptual, etc., *ad infinitum*.

20. (E88-89; T136-38) The example of the lamp is used by other schools to prove that the instruments of knowledge are self-illumined. But this argument is inconclusive, since if it were a valid argument to say that one instrument of knowledge, say perception, does not need any other instrument of knowledge to know it, one could as well argue that the objects of knowledge do not need anything to know them, since the example of the lamp could as well be used to prove that. Then the instruments of knowledge would be useless or redundant. But the Nyāya view is that a particular instance of perception, though it needs a different token of the type instrument-of-knowledge to know it, does not need a different *kind* of instrument; one perception can be known by another perception. And there is no infinite regress here, since the perception known is an object of knowledge, and the perception which grasps it is an instrument of knowledge, and we need not ask what knows the instrumental perception unless a judgment arises expressing knowledge of that instrument.

Topic XIV : Perception

26. (E92; T141) The reason why sense-object-contact is identified as the cause of perception and not mind-self-contact is that the latter kind of contact is involved in all 4 of the instruments of knowledge, while the former is distinctive to perception.

27. (E93 ; T142-43) The point of the examples of sleep and inattention is this: sometimes we go to sleep having decided to wake up at a certain time, and we do so—here our determination brings about contact between internal organ and the self. In other cases we are awakened by a loud noise or by shaking ; here it is contact of our senses with objects that causes the contact between internal organ and self, and not the self's desire which, by hypothesis, is inoperative. Likewise, a self without any desire to attend to a certain object may have his attention forcibly drawn to a thing. Thus the principal causal factor is sense-object-contact and not internal organ-self-contact.

30. (E94-95; T144-45) *Objection* : When a man is asleep or not attending and wakes up or becomes attentive, the causal factors include (according to the Naiyāyika) sense-object-contact as a principal cause and internal organ-self-contact as a subsidiary cause. Now since there is no effort on the self's part, by hypothesis, in these cases, what is it that impels the internal organ to come into contact with the self? Not sense-object-contact, since this is by hypothesis not present here.

Answer : In all judgments it is the effort of the self which brings about contact between self and internal organ, and this effort is always the result in turn of defects in its activity. In the case in question these defects are still operative and cause the effect mentioned. It is essnetial that effort of the self be allowed to be operative with regard to all manner of effects, for if it is not, we shall be unable to explain the initial motion of the elementary atoms which eventually produce the sense organs and their objects.

Topic XV : The Whole

31. (E96-97; T145-46)[13] Two views are mentioned about the nature of an object : (1) an object is an aggregate of component parts; (2) an object is a whole produced from its component parts (but different from them). Now Vātsyāyana argues that on neither view is it correct to say we infer the tree from perception of one of its parts. For on the first view, to know the tree we can, to be sure, infer the presence of other parts from the presence of the one we see, but our knowledge of the tree is a product of memory of all these parts. And on the second view, in order to have an inference of the whole from its part we must have perceived the relation of the whole and part previously, which shows that we can perceive the whole—and that is the view Vātsyāyana wishes to defend.

33. (E97-99; T148-50) Thus Vātsyāyana's view is that the whole

is a distinct substance from its parts and is as perceptible as the parts. *Objection* : No, wholes are known by inference from their parts, because we never see the whole (i.e., all the parts) of an object. *Answer* : But we do not mean by "whole" all the parts. The whole is grasped along with the parts that are grasped through the senses; when the parts are not grasped, neither is the whole.

If the whole were only the aggregate of parts, it would have to be considered as either (1) the collection without remainder of the trunk, the leaves, etc. ; or (2) these parts considered in connection with each other. But in either case we could never grasp the whole tree, since the entirety would never be present, one part hiding another, and since by the same token we never see all the parts in connection with each other.

34-37. (E99-106; T150-63) *Objector*: The previous arguments will not do, as the existence of a whole is unproved and the arguments assume it. *Answer*: We must assume the existence of wholes, since otherwise we could not explain how we see a substance, for instance, which is made up out of unperceivable atoms; for according to the objector, there is no composite whole which could be the locus of the qualities grasped in the perception of a substance. Furthermore we could not hold and pull things if there were no wholes. The pertinent factor which allows for holding and pulling is adhesion (*saṃgraha*) between parts, this adhesion being a quality produced by viscidity and fluidity arising in turn from contact with water (in making a pot) or with fire (in baking a pot). If holding and pulling were due to qualities of the parts, then we should be able to hold or pull a dust-heap, and we should not be able to hold or pull a bundle of straw and wood.[14]

There follows an exposition of the *sūtrakāra's* remarks about the difference between atoms and soldiers. Vātsyāyana adds that the opponent is inaccurate in offering his argument since the point at issue is whether or not our concept of unity refers to a mass of parts, and by assuming that the forest or the army is a mass of parts he begs the question. Nor can he urge that everyone sees that the idea of an army comes from ignoring the differences among its parts, for that is again precisely what is at issue. As a matter of fact, the question of whether the mass of atoms is a single entity could not arise unless we had in mind a prototype of unity with which to compare the mass of atoms—but this prototype must be a perceptible object, which shows the existence of wholes! *Objector* : No, the prototype of unity is such a thing as sound. *Answer* : But in your view sound really is

one, whereas what we need is a prototype which will explain how many things can be conceived as one.

Similarly, the notion of size, since it cannot arise from our idea of atoms, must have another prototype. And like arguments may be drawn from our ideas of contact, motion, genus, and species. To be consistent, the objector should deny the existence of all of these, for they cannot be explained except by admitting wholes distinct from their parts.

Topic XVI : Inference

38-39. (E103-05; T163-66) In addition to the example of the swollen river, Vātsyāyana explains the 2 other kinds of examples Gautama has in mind. (1) We see ants running around with their eggs and conclude that it is going to rain; but, says the objector, it may just be that the ants' nests have been destroyed. Vātsyāyana explains that ants running around in fright look different from those running around peacefully, and besides when rain is coming whole hosts of ants run around. (2) We hear a peacock's scream and infer there is a peacock in the cave; but it might be a man mimicking it, says the objector. But, says Vātsyāyana, snakes can tell peacocks' screams from men's imitations of them!

Topic XVII : Present Time

40-44. (E108-11; T167-72) The grounds on which the objector questions the existence of present time are these. As a piece of fruit falls to the ground, the space through which it has fallen corresponds to the time through which it has fallen, and the space still remaining between it and the ground corresponds to the future time of falling. And these two time spans exhaust the history of the fall. *Answer*: Time is not to be thought of as so closely tied to space. Rather, it is to be understood with respect to motion. Time past corresponds to motions which have ceased, and time future to motions which have not yet started, but neither would be intelligible without our understanding what it is for a motion to be going on, and the time at which they are going on now is the present.

Topic XVIII : Comparison

48. (E113; T176) Vātsyāyana offers another difference between inference and comparison. In comparison one man who knows both *gavayas* and cows, let us say, conveys information to another who does not know cows, whereas the information in the statement "*gavayas* are like cows" conveys to oneself something of a different nature.

Topic XIX: Verbal Testimony

53. (E115; T179-80) The opponent argues that knowledge gained from verbal testimony is inferential. But in inference the relation between *hetu* and *sādhya* must be knowable, whereas the relation between a word and its denotation is not knowable by any of the instruments of knowledge. If contact is taken to be the relation between word and denotatum, it must be a contact which is not knowable, since many denotata are beyond the reach of the senses.

54. (E116; T181-82) Furthermore, if contact were the relation then either the denotatum would have to move toward the word or the word out to the denotatum. If the denotatum moves to the word, then when one says "food" one's mouth should be filled by food. On the other hand, since words are uttered in the throat and the denotatum is usually elsewhere, if the word moves out to the denotatum no words could be uttered.

56. (E116-17; T182-83) What is "convention"? It is an injunction restricting the name to its denotatum, and verbal knowledge does not arise unless this injunction is understood. Even people who hold that the word-denotatum connection is divinely ordained must admit that they learn particular injunctions by observing common usage, and furthermore the science of grammar is developed to identify these injunctions.

Topic XX: Reliability of Scripture

69. (E123-25; T192-94) The trustworthiness of medical professors and of those who practice spells consists in their effectiveness in curing disease and averting evil; but the cause of their trustworthiness is the fact that they have direct knowledge of nature, they want to cure and help people, and they want to describe things accurately. The same characteristics identify the trustworthy Vedic sage; indeed they are the same individuals as those who composed the medical scriptures!

A brief discussion follows against the view that words are eternal and therefore trustworthy. Vātsyāyana points out that even if words are eternal, this would not explain which words are trustworthy, since according to the objector all words are eternal, whereas some words are not trustworthy. In fact, all that could correctly be meant by "the Vedas are eternal" is that there is an unbroken continuity of tradition.

BOOK TWO : PORTION TWO

Topic XXI : *Defense of the Fourfoldness of the Instruments of Knowledge*

1. (E126; T195-96) Examples of some of the 4 additional instruments of knowledge claimed by the opponent : Of presumption : "there is rain when there are clouds" comes to be known from the fact that there is no rain when there are no clouds. Of concurrence : knowledge of a certain kind of measure leads to the grasping of equivalent measures and of amounts contained within them. Of negation: from the fact that it not raining we know that there is some obstruction such as the clouds being blown by high winds.

3-4. (E127-28; T197-98) *Objection*: Presumption is invalid, since sometimes when clouds are present there is no rain. *Answer* : The opponent misunderstands presumption. The argument in question runs from the observation of the concomitance of lack of rain with lack of clouds to the conclusion that clouds are a necessary condition for rain. Of course clouds are not a sufficient condition for rain ; that is the way with causal factors.

8-12. (E129-30; T200-01). Negation is an operative instrument of knowledge in a case where, e.g., we identify certain pieces of cloth by the fact that (unlike others) they are unmarked. *Objection* : This is all very well for something which was marked and ceases to be so, but where there is nothing to cognize, you cannot claim that an instrument cognizes its absence. *Answer* : Well, the marks exist elsewhere; we cognize the absence of those marks which identify the other pieces of cloth. *Objection*: No, the absence is not of *those* marks, since they are located elsewhere. *Answer* : Nevertheless that is precisely how we identify the pieces of cloth in question.

Topic XXII : *Sound Is Noneternal*

Introductory Section. (E130-31; T201-02) Several views are listed about the nature of sound. (1) Sound is a quality of *ākāśa* ; this quality is all-pervasive, eternal, and capable only of manifesting itself (but not of being produced or destroyed). (2) Sound is located in the substances in the same way as smell, etc., and is capable only of manifesting itself. (3) Sound is a quality of *ākāśa* and is capable of being produced and destroyed. (4) Sound is not located in anything; it is produced by a disturbance in the elementary things (*mahābhūta*) and is liable to production and destruction.

13. (E131-32; T202-05) *Question* : Is sound manifested like color, etc., in the same place as its locus, or is a sound produced by contact and in turn gives rise to a series of sounds which eventually

reaches the ear ? *Answer* : The latter, as is shown by the fact that the sound of an axe-blow is heard even after the blow has ceased, for in manifestation the quality cannot persist after its locus is destroyed. And furthermore we speak of the difference between sharp and dull sounds, like sharp and dull pains, which are products. *Objection* : The sharpness or dullness belongs to the manifestation of the locus of sound, and it is this quality of the locus that we apprehend —the sound remains unchanged. *Answer* : No, since some sounds can drown out others—a drum can drown out a lute; this shows there are different sounds. And furthermore, since the drum is the locus of the sound which drowns out, and the lute the locus of the sound which is drowned out, and the two are separated, how can the two kinds of sound come into contact ? If contact is deemed unnecessary, then a drum should drown out all lute-sounds everywhere ! However, in our view the suppression of the drum-sound is limited to those lute-sounds which happen to reach the ear at the same time as the drum-sound.

14-17. (E133-34; T205-09) *Objection* : Sound is eternal because (1) some things which have causes are eternal, e.g., the absence of the pot after it has been destroyed; (2) some things apprehended by the senses are eternal, for example universal properties; (3) some things which are eternal are spoken of as if they were not, e.g., we talk of parts of space, whereas space, being eternal, has no parts. *Answer* : In (1) and (3) words are being used in a loose sense. The post-destruction absence of a pot is not eternal in the strict sense of "eternal," and space has no parts in the strict sense of "part." As for (2), the fact that sounds are grasped by sense organs does not prove sound's noneternality directly, but it does show that there is a series of sounds leading from the place of production to the ear, and this fact in turn shows that each member of the series is noneternal.

35. (E140-41 ; T219-20) Vātsyāyana takes it that we do know the cause of a sound's destruction, even though we do not perceive any cause. We know the cause through inference. What is the inference ? In the series of sounds, each sound destroys its predecessor, and the last sound in the series is destroyed by contact with a nonresonating substance. *Question* : How can one explain the continuing sound of a bell ? The opponent would have to postulate a continuing manifestor in the bell. The Naiyāyika postulates instead a kind of dispositional tendency which appears at each stage of the series in the bell and which can be stronger or weaker corresponding to the intensity of the sound heard.

38-39. (E142-43; T223-24) Vātsyāyana interprets the opponent's

fifth argument in this section as intended to show that sounds do not reside in *ākāśa* but rather in air or perhaps in each of the five substances. He explains the argument as follows: The resonance of the bell must be located where the vibrations producing the sound are located; otherwise we could not stop the sound by putting our hand on the bell. Since the resonance is located somewhere else, according to Nyāya, this consequence will necessarily arise, and thus the Nyāya view must be incorrect. In answer the Naiyāyika says that the objection does not arise, for *ākāśa* is intangible. Since we find that sound continues even in the absence of any material substance, we conclude that sound's locus is an intangible substance, namely *ākāśa*. Furthermore, sound cannot be held to reside in a material substance and be manifested along with that substance's other qualities, because it would then be impossible to explain the diversity among the notes in a tune, etc.

Topic XXIV : The Meaning of Words

63. (E154; T246-47) The *ākṛti* is the collection of parts and of parts of parts of a thing, ordered by rule. But it is not this *ākṛti* which is the meaning of a word, since we apply a word to a thing when we know that thing to be characterized by a universal property, and the *ākṛti* of a thing is not characterized by a universal property. What *is* characterized by the universal property then? It is the substance composed of the parts, not merely the arranged parts.

66. (E155; T248-49) The final Nyāya view is that all three (individual, *ākṛti*, and universal property) together constitute the meaning of a word, and Vātsyāyana adds that it depends on the concerns of the user of the word which factor is predominant. When he wants to differentiate things, the individual is predominant; when he wants to classify them, the universal property is predominant.

67. (E155-56; T249) The individual is a material thing which is a locus of specific qualities (*viśeṣaguṇa*). These specific qualities are color, smell, taste, touch, etc., and a material thing is a composite whole.

68. (E156; T250) Sometimes there is no *ākṛti* at all, as in "clay" or "gold"; here *ākṛti* does not figure in the meaning.

69. (E156; T250) A pure universal (*sāmānya*) is one which does not differentiate but merely brings several things under one judgment. An ordinary universal property (*jāti*) is one which both excludes some things and includes others.

BOOK THREE : PORTION ONE

Topic XXV : *The Self Is Not the Sense Organs*

Introductory Section. (E157-58; T251-52) The question that leads to the present section arises from the problem of interpreting a statement like "he sees with the eye," "he knows with his mind," etc. What does "he" refer to here : (1) a collection of parts, so that these statements are like "the tree stands by its roots," or (2) an independent thing, so that the statement is like "he lights with the lamp" or "he cuts with the axe." The correct view is that the self is something different from the sense organs, following the second interpretation.

2-3. (E158-59; T253-55) Vātsyāyana's interpretation of these *sūtras* is this. An objector argues that the self is a collection of parts including the sense organs, as is shown by the fact that each sense-organ has its appropriate kind of object. The knowing self is just the collection of all of these, for to make it an additional entity would be unnecessarily complex. Vātsyāyana answers that this reasoning is not conclusive, since the fact of the senses having their own objects is compatible with either of the interpretations of the self under discussion. He then interprets *sūtra* 3 as arguing that the fact that each sense has a restricted scope shows the truth of the second interpretation of self, since if there were no such restriction we could not infer a self distinct from the sense organs. But in fact we can and do make such inferences, as we have seen.

4-6. (E160-62; T257-62) If the self were a collection of sense organs, etc., then it would be destroyed each instant and replaced by a new collection. Suppose that *A* is one such collection and *B* is a later collection which has replaced it, and *A* kills a man. Then we cannot hold *A* responsible, since he has already left the scene, but we do attribute the responsibility to *B*, who had nothing to do with the original deed. *Objection*: The question of responsibility does not arise. For the thing that is killed is either a body without an eternal self or a body with an eternal self. Killing the former body is not sinful, and it is impossible to kill the latter self, since it is eternal. *Answer*: Though the self cannot be destroyed, destroying its body and senses is sinful.

11. (E164; T265-67) There are two eyes and not just one organ of vision with two sections, because (1) if the organ of vision were a collection of parts, as the opponent urges in *sūtra* 10, then if one eye were destroyed vision would be destroyed, just as a tree whose branch

is cut off is no longer a tree but a part of a tree ; but this is not what happens. (2) If there were only one visual organ, we should not find two holes in a dead man's skull. (3) If there were only one eye, then obstruction or destruction of vision through one eyeball should bring about obstruction or destruction of vision through the other, but it does not. (4) When we press an eyeball we see two objects, since the rays from the two eyes do not coincide as long as we are pressing on the eyeball; this shows that there are two eyes.

14. (E165-67; T269-72) Memory is a quality of the self and not of a collection of sense organs. If it belonged to the senses we could not explain memory at all, since the collection of senses is continually being destroyed and memory requires a continuing knower. Furthermore, the opponent does not properly understand what it is that is remembered. Memory is in the form "I knew that thing," and its object is not just the thing but rather the thing as known by me earlier.

Topic XXVII : The Body

28-30. (E174-75; T289-90) Three views holding that the body is a combination of material substances are rejected on the ground that the arguments offered are inconclusive (*saṃdigdha*). The argument in each case goes from the presence of the qualities of material substances in the body to its composition, and Vātsyāyana says this is inconclusive since the presence of such qualities can also be explained by the fact that the earth particles, which are properly constitutive of the body, are in contact with particles of the other substances.

31. (E175; T290) The view that the eye is made of fire and the body of earth is traced back to Ṛgveda X.16.3 and Śatapatha Brāhmaṇa XI.8.4.6.

Topic XXVIII : The Sense Organs Are Elemental

37. (E177; T295) Sometimes we can perceive a thing's qualities though we cannot perceive the thing. For example, it is because there are watery molecules in the air during the winter that we feel cold, but we do not perceive the watery molecules, though we do feel the cold.

38. (E178; T296) Vātsyāyana introduces here the notion of unmanifested (*anudbhūta*) qualities. He explains that the rays of the sun have manifested color and manifested touch; that rays of the lamp have manifested but unmanifested touch; that light in contact with water has manifested touch but unmanifested color; and that the ray of the eye has both color and touch unmanifested.

39. (E178-79; T297-98) Only elemental substances can be obstructed. Therefore, since the visual organ is sometimes obstructed it must be elemental. *Objection*: Only nonelemental substances can be unobstructed. Since the visual organ is sometimes unobstructed it must be nonelemental. *Answer* : No. Elemental things are frequently unobstructed, e.g., the heat of a kitchen fire is unobstructed by the metal of the pot, but it is nonetheless elemental.

Topic XXIX : *Plurality of Sense Organs*

53. (E184-85; T310-11) If the only sense were the sense of touch, then the blind man could see color since he can feel. *Objector* : The organ of touch includes the other senses as parts; the blind man is lacking one of the parts. *Answer* : If the organ has several parts, some of which can be lacking, then it must itself be multiple in nature, which contradicts your thesis.

55. (E186; T313) If color is grasped by the skin, then sense-object contact is not necessary for perception (since the skin does not go out to the object). But if contact is unnecessary, we should perceive all colors, etc., at once.

Topic XXX : *Constitution of Senses and Their Objects*

73. (E194; T330-31) The difference between the case of hearing and that of the other senses is this. Whereas vision, say, grasps things only in virtue of its possessing a particular color on its own behalf, and the nose grasps odors and has its own smell too, the auditory organ, which is just *ākāśa*, does not have its own particular sound, since *ākāśa* is all-pervasive. And furthermore *ākāśa*, unlike the other four elements, can be shown by inference to be the only substance which can grasp its own quality, whereas this inference is not forthcoming for the other sense organs.

BOOK THREE : PORTION TWO

Topic XXXI : *Judgment Is Noneternal*

1. (E195; T332-33) The characteristic which *karma* and *ākāśa* share is intangibility.

2-3. (E196-98; T334-38) The opponent of this section is identified by Vātsyāyana as the Sāṃkhya, who holds that the *buddhi* is (not a quality but) the inner cause (*antaḥkāraṇa*) and is eternal because we recognize objects. Vātsyāyana's answer distinguishes the Sāṃkhya view that *buddhi* is the knower from the Nyāya view that the self is the knower and judgment its instrument. "Because we recog-

nize objects" certainly establishes that the knower is eternal, but it does not establish that the instrument of knowledge, whatever it be called, is.

9. (E200; T342-44) Vātsyāyana takes *sūtra* 9 to be a part of Topic XXXI rather than the next topic. He views it as an opponent's argument. This opponent holds that the inner cause and its operations are identical, and since the inner cause is one, its operation must be unitary also; the appearance of difference among the operations is like the appearance of difference in color in a piece of glass when it is put over a variety of differently colored substances. Vātsyāyana controverts the analogy by pointing out that in the case of judgment, unlike that of the piece of glass, the operations appear one after another in concomitance with the sense-objects, and thus the diversity of these operations is real and not apparent as the opponent thinks.

Topic XXXII : Destruction and Production[15]

10-11. (E200-01; T344-46) Vātsyāyana introduces his opponent here as a *kṣaṇikavādin*, a proponent of momentariness, and this opponent is made out to object to the Sāṃkhya view of *sūtra* 9, asserting that in the case of the piece of glass as much as in the case of judgment new things are produced and old ones destroyed every moment. He supports this by appealing to the common experience of growth and decay. The Nyāya answer is that our common experience only supports the opponent's view in some cases, not in all.

Topic XXXIII : The Locus of Judgments Is the Self

19. (E205; T353-55) Vātsyāyana explains that judgments cannot reside in the internal organ, since we infer the existence of an internal organ from the nonsimultaneity of judgments. The nonsimultaneous judgments must be located elsewhere, namely in the self. He adds that the yogi's simultaneous knowledge of disparate things would be impossible if judgments belonged to the internal organ. He credits yogis with the ability to create a number of bodies with distinct sets of sense organs.

23-24. (E207; T356-57) There are two ways in which qualities can be destroyed : (1) by destruction of the substance in which they reside, and (2) by a contrary quality replacing them. The destruction of a judgment is, of course, the second sort, the residence of judgment being eternal; it is like the destruction of one sound by another, though their residence, *ākāśa*, is eternal.

26. (E208; T358) A "living" person is defined as one where an

internal organ is in contact, as an outcome of past *karma*, with that quasi-part of a self that is limited within a body. Therefore the internal organ cannot come into contact with (quasi-) parts of the self which are outside the body.

33. (E210-13; T362-65) *Objection* : Some memories do not require any effort of attention etc.; they are like intuition. Now in their case they should be grasped simultaneously, since the differentiating conditions, which Gautama claims account for nonsimultaneity, here are absent. *Answer* : There are no such memories. Sometimes men overlook the causes of memory and think that memory resembles intuition, but they are wrong. *Objection*: Well, how about intuitions themselves ? Why don't they appear simultaneously ? *Answer* : It is due to *karma*. But in any case an instrument can only do one thing at a time; that is its nature.

37. (E225-27; T368-72) Vātsyāyana here refutes the materialist who holds that the body is the knower. In addition to Gautama's argument, he offers others. (1) Since the body is composed of many particles, and since according to the opponent material particles are capable of desire and aversion and therefore judgment, the result would be that there are many knowers in each man. (2) The opponent argues that matter is capable of desire and aversion on the ground that it is capable of activity and inactivity. But the kind of activity and inactivity characteristic of human beings is quite different from that characteristic of material particles. (3) Since the activity of material things is frequently found to be due to the qualities of other things, the activity of the particles composing the body is due to the qualities of something else, namely the qualities of effort, etc., which belong to the self, which is other than the body.

42-45. (E222-24; T379-83) Vātsyāyana argues here that judgments, unlike pots, are completely evanescent, lasting but a moment. An arrow's flight consists of a series of movements. Since each one is the object of a corresponding judgment, it follows that these judgments are of equally short duration. Furthermore, if judgments were not transitory our perception of a jar should persist after the jar disappears. The fact that we know some things as manifested and others as not is not due to any difference in the judgments but rather to the causes of those judgments. When we judge things through their general features, we judge them as manifest with respect to those features and unmanifest with respect to the differentiating features. When we know them through both general and differentiating features we know them as manifest with respect to both kinds of features. Indeed, there can be no judgment of an object as unmanifested so far

as its own object is what is known, so the opponent's objection cannot arise.

46. (E224-25; T383-84) Vātsyāyana takes this *sūtra* together with what follows. According to him it raises doubt whether judgments belong to the body on the ground that substances have other qualities beside their own, e.g., in water there is fluidity, which is a quality of fire.

47. (E225-26; T383-85) Judgment is not a natural quality of the body like color, says Gautama ; but an objector asks why it could not be like dispositional tendencies? *Answer*: No; when a dispositional tendency disappears from an object, the object is no longer the same as it was before, lacking the properties which conduced to the exhibition of the tendency, whereas when consciousness ceases to appear in the body the body remains otherwise exactly the same.

Topic XXXIV : Each Self Has One Internal Organ

58. (E229-30; T391-92) In particular our knowledge of words is an example of nonsimultaneous judgments being thought simultaneous because they are presented rapidly; like the wheel of fire. The syllables are presented separately but coalesce in our consciousness.

Topic XXXV : The Body Is Produced by One's Karma

60. (E232; T394) The exact story of the production of a body is this. A person does certain acts in a previous body and the effects of these acts consist in the merit and demerit produced. When that body dies, another is born through the dispositional tendencies causing the merit and demerit to operate on the material stuff which makes up bodies. Persisting through the series of bodies is a self, which is the locus of the desires which result in the acts.

66-67. (E234-36; T397-400) *Objection*: Since all the selves are all-pervasive they are therefore all in contact with a given body. Therefore that body should belong to all the selves, not just to one. *Answer* : However, each body is found to be connected with one self only, and to explain this connection we appeal to *karma*. It also explains how one self can be freed without all selves being freed at the same time.

68. (E236-38; T401-02) What is this *adṛṣṭa* that Gautama, mentions? Vātsyāyana offers two different readings, so that the objection takes two forms. On one reading *adṛṣṭa* means the non perception (*adarśana*) of things resulting from the lack of connection between self and body. If the opponent takes this nonperception as the cause of the subsequent union of self with body, he will be unable to explain

why after release — since there is then nonperception — there should not be further bondage.

On the other reading *adrṣṭa* is a quality of atoms (an "unseen" quality) which produces motion in the atoms, which in turn results in the aggregation we call the body, which is thus the special cause of the production of the body. But this quality is indestructible (since atoms are indestructible), and therefore once again there could be no release.

71-72. (E239-40; T404-07) *An objection* : Though the dark color of an atom is eternal, it can be obstructed in baking and never appear again. Just so, the unseen quality of atoms, though eternal, can be obstructed, and final release is thus possible. *Answer* : The view is unproved. Furthermore, if *karma* were not operative men would get results they did not earn and not get the results they have earned, which is contrary to perception, inference and scripture.

BOOK FOUR : PORTION ONE

Topic XXXVI : *Defects*

19-21. (E250-53; T420-24) According to Vātsyāyana, *sūtra* 19 sets forth Gautama's view that God is the cause of the production of things; 20 constitutes an objection to the effect that since man's acts are a necessary condition for any fruits God is unnecessary; and 21 answers this by saying that men's acts would not produce fruits without God's help. Vātsyāyana then goes on to define "God." God is a self with peculiar qualities, viz., (1) absence of demerit, wrong judgment, and negligence, (2) presence of merit, knowledge, and concentration; (3) has eight kinds of divine power resulting from (2); (4) His ideas are meritorious; (5) controls the operation of each self's *karma* as well as the elements; (6) enjoys the results of what He Himself has produced according to His own desires; (7) though He has attained the fruits of His own *karma*, nevertheless He acts for the sake of others just as a father for his children. God must be a self, since the only features by which we can know Him are his knowledge, etc., characteristics of selves. If this were not so, how could He be known at all?

Topic XXXVIII : *Some Things Eternal, Others Not*

25-28. (E255-56; T426-28) Vātsyāyana takes *sūtra* 26 to be answered in turn by *sūtra* 27, with the final view uttered in 28. In this reading Gautama does not argue that noneternality is eternal;

he rejects this, but maintains that there are eternal things because we perceive things to be nonliable to production and destruction.

32. (E257-58; T429-31) Vātsyāyana lists several reasons why we must admit that things are produced and destroyed, things like jars, etc. *Objection* : The perception of production and destruction is as in a dream and so is wrong apprehension. *Answer* : Then our perception of the things you think to be eternal are also dreamlike and therefore misapprehended. *Opponent* : However, if there were no eternal things our practical behavior would come to an end.

33. (E258-59; T431-33) *Objection* : There is no production and destruction, but what we call production and destruction involves the appearance and disappearance of properties. When a thing is "produced" it has already been in existence but now takes on a new property; when a thing is "destroyed" it still exists but has lost a property! *Answer* : No, for under this view we could never know that something has been born or destroyed. For "taking on a new property" is a kind of production, and therefore according to the analysis offered that property would have to be extant before "production" and after "destruction." Furthermore, we could not distinguish temporal differences, since everything would be present always.

36. (E260-61 ; T434-35) The opponent is urging here that everything is an aggregate. But this is self-contradictory, since aggregates are aggregates of single entities; therefore if everything is an aggregate something is not an aggregate.

37-38. (E262-65; T436-39) The objector's thesis is that everything has as its nature merely its difference from other things; e.g., a cow is not a horse. Thus everything is at bottom an absence. Vātsyāyana gives several answers of his own, as well as offering different interpretations of Gautama's reply. (1) The word "all" refers to a collection of positive things. Therefore there is a contradiction between hypothesis and reason in your argument. (3) The opponent claims that by their very nature things are nonexistent in themselves. But the very nature of a thing is to exist. (4) Since you urge that the cow is non-horse, why can't you equally well say that the cow is non-cow? The fact that you cannot intelligibly say this shows clearly that cow is a positive entity with its own nature, and not a negative entity depending on the nature of another.

39-40. (E265-66; T439-41) The opponent argues that there is no positive nature (*svabhāva*) of a thing, since everything's nature is relative to something else. The Nyāya answer is that if "long" is relative to "short," then "short" cannot be relative to "long," since if both depend on each other the absence of one would necessitate the

absence of the other, and the notions would never arise (since one or the other must be absent). Furthermore, if everything were relative, we should have the idea about a given thing that it is both short and long at the same time; but we do not.

41-43. (E267-70; T441-43) One can never prove that there are only a certain number of things, for either the means of proof (*sādhana*) is the same as or different from the thing to be proved (*sādhya*). If it is the same as the thing to be proved, then there is no proof; if it is different from the thing to be proved, then there are more things than the limited number to be proved. And if you say that the means of proving is a part of what is to be proved, you are contradicting yourself, since in your view there can be no parts. For if there were the possibility of things having parts, then there would be more things than the limited number you claim there is.

Topic XLI : *Release*

59-60. (E277-81; T454-61) The "debts" Gautama refers to are our debts to the sages, to the gods, and to the fathers. The Vedas tell us to perform sacrifices to pay these debts. But they go on to say that these debts persist until death, and since there is no time after that to perform sacrifices, there can be no release. Vātsyāyana explains the secondary meanings here at length. In the first place, the Vedas cannot mean to speak literally of debts here, but rather mean to speak of something like a debt but from which we can be released. *Karma* is like debt in that a person who fails to perform sacrifices is condemned like one who does not pay his debts. Furthermore, Vātsyāyana argues, the "death" which the Vedas talk of here is not literally death but in fact release.

BOOK FOUR : PORTION TWO

Topic XLII : *How Correct Knowledge Destroys Defects*

Introductory Section. (E287-89 ; T467-70) The question is raised: Do judgments about reality (*tattvajñāna*) arise with respect to each and every thing, or with respect to only some things? Not the former, since the number of things is in(de)finite. Not the latter, since wrong judgments would still be present, and release therefore impossible. To this Vātsyāyana answers that delusion consists in wrong judgments, not merely in the absence of judgments about (some of the) real things. More particularly, it is knowledge of the real nature of the self which is the releasing knowledge. Wrong judgment about the self is viewing what is not-self as self—in parti-

cular, thinking that the body, the senses, the internal organ, feelings, or judgments are the self. How do wrong judgments of this sort lead to bondage ? When a man looks on his body, etc., as his self he comes to have a longing for their continuance, and this longing results in their continuing. The antidote to this is knowledge concerning 4 kinds of things : (1) things to be known, like rebirth, fruit, and pain; (2) things to be abandoned, like activity and defects; (3) things to be attained, i.e., release; and (4) the means of attaining it, that is, knowledge of the real nature of (these) things.

2-3. (E289-91; T470-72) It is because our ideas of color, etc., are tinged with our desire and attachment that those ideas bind us. The way to meet this is to become unattached to those objects through understanding their true nature. Likewise, our idea of the pleasant characteristics of a whole, e.g., of the female body, become the cause of defects; and these can be met by thinking only on the disagreeable characteristics of the parts of that body.

Topic XLIII : Whole and Part

7-12. (E292-94; T474-77) The objector's point is expanded as follows : The whole cannot reside in the parts, since they are of different sizes, and part of it cannot reside in each of the parts, since by hypothesis the whole has no parts. Nor can the whole reside apart from the parts, because we always see the two together and because the whole would be eternal, which it is not. Nor can the whole be a quality of the parts taken together because the parts already have qualities and qualities cannot have qualities.

The answer is that all these problems arise only on the understanding that the whole is many and not one. On the Nyāya view of the whole, questions predicated on its diversity do not arise, since it is unitary. But then, the opponent understandably inquires, what *is* the relation between whole and parts ? Vātsyāyana explains that the relation is inherence. This relation is present when between two things one cannot occur without the other ; here the whole cannot occur without the parts, but nevertheless they are distinct entities. *Objection* : How can there be such a relation when some of the relata are eternal things ? *Answer* : We know there is such a relation by inference from the case of noneternal things.

It is not that, in seeking release, we are to suppose that there are no wholes. Rather, we are to suppress our desire for wholes. Wholes exist as much as colors, etc; both are sources of attachment.

13-14. (E294-95; T478-79) The opponent wants to use the example of a head of hair to show that our perception of middle-sized-

objects is of a mass of parts which become fused due to our senses not being acute enough to distinguish one part from another. Vātsyāyana's answer is that this cannot be right, since the senses have their intrinsic limitations. Atoms, for example, cannot be sensed; they are too small. The opponent wants to make out that if enough of them are combined we can sense them. But Vātsyāyana argues that no manner of conglomeration of imperceptible things can become perceptible ; it is only if the atoms combine to produce a new whole different from the conglomeration of atoms that something is produced which is of the right size to be grasped by a sense organ.

Topic XLIV : *Atomic Theory*

22. (E297-98; T483-84) *Ākāśa* is not collected, as is shown by the fact that there is no change in *ākāśa* when things move in it or against it; this shows that *ākāśa* has no parts to displace each other. Likewise, *ākāśa* is nonobstructive, as is seen from the fact that it does not obstruct things moving in it or against it. This shows that *ākāśa* is intangible.

25. (E300; T485-86) If atoms are made up of parts because they are capable of contact, then everything has parts and this involves infinite regress; since infinite regress is impossible, atoms are not made up of parts. If infinite regress were possible and everything did have an infinite number of parts, then we should not be able to explain how we come to have the ideas of diverse sizes, or of weight, and the whole and the part would have to be of the same size !

Topic XLV : *Existence of the Eternal World.*

26-28. (E301-02; T486-88) Vātsyāyana has the objection thus: all judgments which have an object are wrong judgments. For consider a judgment about a cloth; when we inspect the object closely we find only yarns and nothing else in addition which could be rightly called a "cloth"; therefore the judgment concerning a cloth is false. This argument holds analogously for all judgments about objects. *Answer* : This is self-contradictory, because the argument assumes that one can "closely inspect" an object—rightly judge its nature —but at the same time denies that one can rightly judge anything. Furthermore, we do sometimes, though not usually, find both the whole and the part when we inspect an object closely, e.g., when the parts are imperceptible (atoms) and the whole is perceptible, we know the former by inference and the latter by perception.

Topic XLVI : The Falsity of Everything Refuted

34-35. (E304-05; T491-92) A wrong idea can only occur if it is based on a prototype—e.g., the idea "this is a pillar, not a man" is only explicable on the supposition that the person making the judgment has seen a man. Now when a mistaken judgment is corrected, what is destroyed is not any object—there are still both pillars and men —but rather a certain wrong judgment. It is precisely the same in the case of dreams, magic, and the city of the Gandharvas (explained here as a sort of mirage). There is always some real object which, though misapprehended, nevertheless is the object of a wrong judgment. That there is, is shown by the fact that in every such case the judgment would not be possible were it not for the existence of an object. Thus in the mirage, where we see a lake in the desert, the object is the sun's rays flickering due to contact with the earth's surface heat; we think we see water because of the similar quality (flickering) between water and the said behavior of the rays. But there would be no such illusion at night, when the sun does not shine.

36-37. (E305-06; T493-94) If the objector is not even willing to admit that cognition itself is something real, it is pointed out that wrong judgment differs from right in that it, so to speak, has two objects : the object which the judgment is really about, and the prototype which is mistakenly thought to be present. Now when a judgment, as for example the apprehension of a certain smell, does not have two objects, there is no problem of its being wrong. This then is right knowledge and its object is real. And wrong judgment, too, is real, since we know its causes and since we experience it.

BOOK FIVE : PORTION ONE

Topic XLVIII : Futile Rejoinders

1-38. (E312-28; T502-35) In these sections Vātsyāyana offers examples of the twenty-four kinds of futile rejoinder and explains how to deal with each one. In each case we may identify (1) an argument in the form of an inference, (2) a (futile) rejoinder, and (3) an explanation or "solution" which solves the problem of how to deal with such a rejoinder. We may, then, summarize the matter schematically :

1. *Argument* : "The self is active, because it is a substance endowed with qualities conducive to activity, like a piece of earth."

Rejoinder : "The self is inactive because every all-pervasive substance is inactive."

Solution : Always offer as your *hetu* a property invariably concomitant with the *sādhya*.

2. *Argument* : As in (1).

Rejoinder : "The self is inactive, because it is not limited in extent, unlike a piece of earth."

Solution : As in (1).

3. *Argument* : As in (1).

Rejoinder : "The self is not active, because if it were active like a piece of earth, it ought to be tangible like earth also, but it isn't."

Solution : It is sufficient that the *sapakṣa* be similar to the *pakṣa* in some respects. It cannot be similar in *all* respects or it would be identical with the *pakṣa*. Therefore arguments cannot be set aside merely on the ground of dissimilarity in some respect between *sapakṣa* and *pakṣa*.

4. *Argument* : As in (1).

Rejoinder : "The self is not active, because if it were active like the piece of earth it should be nonpervasive like the piece of earth, but it isn't."

Solution : As in (3).

5. *Argument* : As in (1).

Rejoinder : "It is uncertain whether pieces of earth are active, and thus your example is different from the *pakṣa* — the self — which is certainly active."

Solution : As in (3).

6. *Argument* : As in (1).

Rejoinder : "It is quite clear that the self is as active as a piece of earth is; thus your inference fails since the *pakṣa* certainly has the *sādhya* property."

Solution : As in (3).

7. *Argument* : As in (1).

Rejoinder : "The self may be inactive, since earth, possessing weight, is active, while air, lacking weight, is also active — and likewise the piece of earth, which has the qualities conducive to activity, may be active whereas the self, which also has those qualities, is inactive."

Solution : As in (3).

8. *Argument* : As in (1).

Rejoinder : "Since the piece of earth is like the self in being active (according to the argument) and the presence of activity in the self is still to be proved, the presence of activity in the piece of earth also is still to be proved, and the argument fails — or if the presence of activity in the piece of earth is not still to be proved, it is unlike the self and cannot function as example."

Solution : As in (3).

9. *Argument* : As in (1).

Rejoinder: "Are your *sādhya* and *hetu* united (*prāpya*)? If so, there is nothing to be proved or else no proof."

Solution : Point out cases where causes are united with effects — e.g., jars and their causes — to show that the *hetu* can cause the *sādhya* even though united with it.

10. *Argument* : As in (1).

Rejoinder : "Are your *sādhya* and *hetu* united? If not, the *hetu* cannot establish the *sādhya*, since a lamp cannot light up an object unless its light unites with the object."

Solution : Point out cases of causation without contact — e.g., magic spells — to show that the *hetu* can cause the *sādhya* without uniting with it.

11. *Argument* : As in (1).

Rejoinder : "Why do you say that the piece of earth is active?"

Solution : Show that it is a properly qualified example by demonstrating that it is accepted as common opinion ; or if the question is what is the purpose of offering an example, the answer is "to prove the hypothesis."

12. *Argument* : As in (1).

Rejoinder : "The self is inactive, because though its contact with air aided by dispositional tendencies to move trees endows it with qualities conducive to action, it does not act, just like *ākāśa*."

Solution : Show that your reason is effective (*sādhaka*) while your opponent's is not.

13. *Argument* : "Sound is noneternal, because it comes after effort, like a jar."

Rejoinder : "Sound is eternal, because before it is produced there is no coming-after-effort; and since therefore sound is eternal, it follows that it is never produced."

Solution : Point out that there is no sound before it is produced and therefore such a nonentity cannot have absence-of-coming-after-effort in it.

14. *Argument* : As in (13).

Rejoinder : "Your argument is doubtful, since sound, like both universals and jars, is perceptible — and since universals are eternal and jars are not, by similarity to both sound's status is problematic."

Solution : Similarity is not a cause of doubt when the distinguishing characteristic has been mentioned. Here, coming-after-effort is the distinguishing feature.

15. *Argument* : As in (13).

Rejoinder : "Sound is eternal, because it is perceptible by the ear, like soundness." Since this argument is as acceptable as the argument in (13) no conclusion can be drawn."

Solution : It is impossible that the opponent's argument should be established and at the same time that no conclusion can be drawn.

16. *Argument* : As in (13).

Rejoinder : "The *hetu* must exist either before, during, or after the *sādhya's* existence. But it can exist at none of those times, for if it existed before, of what could it be the prover ? If both are simultaneous, which one is the prover ? And if it comes after, where is the thing to be proved ? Therefore the *hetu* can never prove anything."

Solution: There must be a prover, since experience tells us that proofs occur. And the *hetu* exists "before" the *sādhya* in the sense that any instrument exists "before" that which it is the means of accomplishing.

17. *Argument* : As in (13).

Rejoinder : "If the argument is justified on the ground of the similarity of sound to noneternal things, then by presumption it is also undermined by the similarity to sound to eternal things, e.g., similarity with respect to intangibility."

Solution : If "presumption" merely means what is not stated but implied, then among such things that are implied by the truth of the argument in (13) is the falsity of the opponent's thesis.

18. *Argument* : As in (13).

Rejoinder : "If any similarity makes two things identical, then everything is identical, since everything resembles everything else in such a respect as existence, for instance."

Solution : Some similarities are compatible with others, and some similarities are not. Coming-after-effort is of the former sort; existence is of the latter. If the opponent urges that any two things which exist are noneternal, so that existence always accompanies noneternality, then the opponent will be unable to provide any examples for his argument, and it will fail.

19. *Argument* : As in (13).

Rejoinder : " 'Sound is noneternal' is as well off as 'sound is eternal', since there are grounds for both."

Solution : There cannot be grounds for one thesis without those grounds being equally grounds for denying any contradictory thesis. Therefore there cannot be grounds for both.

20. *Argument* : As in (13).

Rejoinder : "The argument is fallacious, since the noneternality

of sound is found also in branches broken by the wind (where no effort is involved)."

Solution : So what? Sound may be produced by other causes besides the one mentioned as *hetu*.

21. *Argument* : "When sound is not heard, it is nonexistent (and therefore noneternal), because if it were existent we would apprehend that which obstructs it from being heard."

Rejoinder: "Since the nonapprehension of the obstruction is not apprehended, that nonapprehension is nonexistent; therefore the obstruction does exist."

Solution: It does not make sense to talk of the apprehension of a nonapprehension; therefore it does not make sense to talk of the nonapprehension of a nonapprehension either. Nonapprehension is mere failure to apprehend, i.e., an absence, and not another kind of apprehension.

22. *Argument* : "Sound is noneternal, because it is similar to the jar, which is noneternal."

Rejoinder: "Then all things are noneternal, because they are all similar to the jar, which is existent."

Solution : Existence, not being concomitant with noneternality, is not a proper similarity on which to ground inference.

23. *Argument* : As in (13).

Rejoinder: "Since noneternality is eternal, it follows that sound is eternal because it is noneternal."

Solution : No, since if sound is unmanifested it must be due to an obstruction and we fail to apprehend any such obstruction.

39-43. (E328-32; T535-39) Vātsyāyana here discusses the 6 steps of a futile discussion. There are (1) setting forth of an argument; (2) the opponent urges that the *hetu* is inconclusive; (3) the first speaker argues that if his *hetu* is inconclusive the same applies to the opponent's denial of it; (4) the opponent argues the same about the denial of his denial; (5) but admits that his own view (in step 2) is faulty; (6) but the first party's view (in step 1) is also faulty since he has admitted the same fault in the opponent's view. Thus both parties are guilty, and the whole discussion is worthless.

BOOK FIVE : PORTION TWO

Topic XLVIX : *Ways of Losing an Argument*

1-24. (E333-40; T540-54) These are the 22 ways of losing an argument;

1. (*pratijñāhāni*) When a property of the opponent's example is admitted to be present in one's own example.

2. (*pratijñāntara*) When one changes his hypothesis under fire (e.g., starting by putting forward a thesis about sound using properties of jars as example, and ending by defending a thesis about jars).

3. (*pratijñāvirodha*) When the hypothesis and the reason contradict each other, e.g., "substance is different from quality, because nothing is perceived except color, etc."

4. (*pratijñāsannyāsa*) When one renounces his own hypothesis.

5. (*hetvantara*) When one modifies his *hetu* under fire and thus produces a different reason from the one originally offered.

6. (*arthāntara*) When one defends his argument by irrelevant statements.

7. (*nirarthaka*) When one defends his argument by meaningless jargon.

8. (*avijñātārthaka*) When one's argument is unintelligible to his hearers even after having been stated three times.

9. (*apārthaka*) When there is no connected meaning in one's argument.

10. (*aprāptakāla*) When the members of the argument are stated in the wrong order.

11. (*nyūna*) When one fails to give all members of the argument.

12. (*ādhika*) When more than enough examples are proffered (though this is only a mistake if there has been agreement that the speaker should restrict himself to a minimal number of examples).

13. (*punarukta*) When the speaker repeats himself needlessly.

14. (*ananubhāṣaṇa*) Feigned failure to understand the opponent even when the opponent has said his say three times and it has been understood by the audience.

15. (*ajñāna*) Actual failure to understand the opponent under the conditions mentioned in (14).

16. (*aprātibha*) When one is embarrassed and does not know how to answer the opponent.

17. (*vikṣepa*) Evading the discussion on pretext.

18. (*matānujña*) When one admits that his argument is mistaken by arguing that the opponent's argument commits the same mistake.

19. (*paryanuyojyopekṣaṇa*) When one fails to catch his opponent in making a mistake. (However, says Vātsyāyana, the audience cannot very well expect the discussant, when the audience is deciding who won the debate, to claim victory on the ground that his opponent failed to catch his mistake!)

20. (*niranuyojyānuyoga*) When one charges his opponent with a mistake the opponent has not committed.

21. (*apasiddhānta*) When one contradicts himself in the course of offering an argument.

22. (*hetvābhāsa*) When one commits one of the fallacies of the reason.

6. CANDRAMATI (MATICANDRA)

We treat next an odd work entitled *Daśapadārthaśāstra*, preserved in Chinese. It is an odd work because the system it presents differs in fundamental respects from classical Vaiśeṣika, although it is clear that a type of Vaiśeṣika system is being expounded. It has a certain importance for Chinese thought, in that it was the only non-Buddhist work other than the *Sāṃkhyakārikās* to have been translated into Chinese.[1] It was, in fact, translated by the famous Chinese pilgrim Hsuan-tsang; Ui gives the date of the translation as A.D.648.[2]

The work is available in translation from the Chinese in the volume by Hakuju Ui entitled *The Vaiśeṣika Philosophy*. In that work Ui presented arguments for dating the work's author, Candramati, in the first half of the sixth century. The argument mainly turns on the fact that Dharmapāla, a well-known Buddhist commentator of the mid-6th century, knows Vaiśeṣika in the 6-category fashion expounded in Kaṇāda and Praśastapāda, but not in the 10-category system as found in Candramati. Therefore, argues Ui, Dharmapāla cannot have lived after Candramati, and he dates them as contemporaries.[3]

More recently this argument has been questioned by Erich Frauwallner,[4] who proposes that Candramati may well antedate Praśastapāda as well as Dharmapāla. Dharmapāla may have ignored the 10-category system merely because it was unorthodox; furthermore, Dharmapāla's discussion of Vaiśeṣika occurs in the course of discussing a work of Āryadeva's, and since Āryadeva probably preceded Candramati it would have been anachronistic for Dharmapāla to relate his text to Candramati's version. Ui also seems to think that Candramati's work presupposes the prior existence of Praśastapāda's, but Frauwallner points out that the correspondences are not great, and that the arrangement of the sections and other aspects of Candramati's text suggests more dependence on a work such as the *Abhidharmakośa* than on the commentary of Praśastapāda. Furthermore, on internal grounds we should date Candramati earlier: his treatment of many matters is primitive by comparison with Praśastapāda's expansiveness, and where Candramati does provide expanded treat-

ment his explanations tend to hew closer to the *Vaiśeṣikasūtras* than do Praśastapāda's.

Frauwallner also makes some interesting comments about the logical theory found in the *Daśapadārthaśāstra* and its origins. He suggests that Candramati gets his theory of inference from Varṣagaṇa's Sāṃkhya, which featured a bipartite division (*dṛṣṭa* and *sāmānyatodṛṣṭa*) rather than the tripartite one found in the *Nyāyasūtras* and more common later on. Of interest also is the contrast between two kinds of inference called *vīta* and *avīta*, the former referring to the fivefold Nyāya inferential pattern, the latter referring to a method of proving hypotheses contrary to the right one to be impossible. Frauwallner's arguments here are provocative, but they force him to draw some artificial conclusions about certain of the *Vaiśeṣikasūtras* which also feature the bipartite divisions; Frauwallner dismisses these *sūtras* (II.1.15-17 and III.2.6-8) as "later additions"!

On the basis of these arguments and others, Frauwallner contends that Candramati may be taken to be a contemporary of Vindhyavāsin and of Vasubandhu the younger (the author of *Abhidharmakośa* in Frauwallner's reconstruction)—thus he dates Candramati in the first half of the fifth century.[5]

DAŚAPADĀRTHAŚĀSTRA
(Summarized by Masaaki Hattori)

In this treatise, the author adds 4 new categories to the 6 recognized in the *Vaiśeṣikasūtras*. He discusses in a systematic manner the categories from beginning to end, without touching upon such topics as emancipation, yoga, and the like treated in the *sūtras*.

Numbered references in parentheses refer to page and line of the edition of the work published in *Taisho Shinshu Daizokyo*, volume 54, pp. 1262c-1266a (Tokyo, 1928), and to the pages of the translation provided in H. Ui, *The Vaiśeṣika Philosophy* (London, 1917)[6].

1. In addition to the 6 categories mentioned in the *sūtras*, the author enumerates 4 other categories, namely (1) causal efficacy (*śakti*), (2) lack of causal efficacy (*aśakti*), (3) limited universal (*sāmānyaviśeṣa*), and (4) absence (*abhāva*).[7] (1262c.14-16; 93)

2. Nine substances are listed and the characteristic feature of each substance is explained. A peculiarity of the explanation is this: Self and internal organ are held to be respectively the inherence cause (*samavāyikāraṇa*) and the noninherence cause (*asamavāyikāraṇa*)

of judgment, pleasure, pain, desire, aversion, effort, dispositional tendency, merit, and demerit.[8] (1262c. 17-27 : 93-94)

3. In the list of qualities, the following 7 are added to Kaṇāda's list : (1) weight (*gurutva*), (2) fluidity (*dravatva*), (3) viscidity (*sneha*), (4) dispositional tendency (*saṃskāra*), (5) merit (*dharma*), (6) demerit (*adharma*), and (7) sound (*śabda*). (1263a.1-6; 94)

4. The characteristic feature of each quality is explained. Deviations from the *sūtras* occur in the explanation of size: Minuteness (*aṇutva*) and shortness (*hrasvatva*) are characterized as having a dyad (*dvyaṇuka*) for their inherence cause. Sphericity (*pārimaṇḍalya*) is divided into two, viz., absolute minuteness which resides in an atom, and absolute largeness which resides in *ākāśa*, time, place, and self. (1263a. 7-c.2; 94-98)

5. Judgment is explained in detail. Judgments are of two kinds : perceptual and inferential. Two kinds of inference are mentioned here : inference based on perception of a common property (*dṛṣṭasāmānyam anumānam*), and inference based on nonperception-of-a-common-property (*adṛṣṭasāmānyam anumānam*). The former is the instrument in cognizing an unperceived object through contact between self and internal organ, which contact is preceded by the perception of an inferential mark and conditioned by the memory of the connection of this mark with the object. The latter is the instrument in cognizing an absolutely imperceptible object through the contact between self and internal organ, which contact is preceded by the perception of either a cause of, an effect of, a thing in contact with, something co-inherent in the same thing as, or something contradictory to *x*, and is conditioned by the memory of *x*'s connection with the object.[9] (1263b. 5-13; 97)

6. The qualities which are not enumerated in the *sūtra* are explained as follows : Weight inheres in earth and water, and causes the falling down of a substance. Fluidity inheres in earth, water, and fire and causes the flowing of a substance. Viscidity inheres in water and causes coherence with a substance such as earth. Dispositional tendencies are of two kinds, viz. (a) tendencies caused by mental activity, and (b) tendencies caused by motion. The former kind inheres in selves, and is produced by perceptual or inferential judgments. The latter kind resides in material substances and is produced by impulsion (*nodana*) or any other motion. Merit is of two kinds, viz., activity (*pravṛtti*) and inactivity (*nivṛtti*). Activity is the cause of pleasure in a desirable body, etc., inheres in selves, and destroys one substance by its effect. Inactivity is the cause of delight in perfect cognition free of attachment, inheres in selves, and destroys

one substance by its effect. Demerit is the cause of pain and imperfect cognitions in an undesirable body, inheres in selves and destroys one substance by its effect. Sound resides in one substance and is perceived only by the auditory organ. (1263b.18-c.2; 97-98)

7. Five kinds of motion are listed and explained. (1263c.2-11; 98-99)

8. (The categories of) universal (*sāmānya*) and individuator (*viśeṣa*) comprise respectively the ultimate genus, i.e., Being (*sattā*), and the ultimate individuator (*antyaviśeṣa*). (1263c.12-18; 99-100)

9. Causal efficacy inheres in substances, qualities, and motions and is indispensable for them to produce effects cooperatively or individually. (1263c.19-20; 100)

10. Lack of causal efficacy inheres in substances, qualities, and motions and is indispensable for them in order not to produce any effect other than their own, either cooperatively or individually. (1263c.21-22; 100)

11. Substanceness, etc., which are recognized as genera from one point of view and as species from another, are classified under the category of limited universal (*sāmānyaviśeṣa*). (1263c. 23-1264a.1; 100-01)

12. Absences are of five kinds, viz., prior absence (*pūrvābhāva*), posterior absence (*pradhvaṃsābhāva*), mutual absence (*anyonyābhāva* or *itaretarābhāva*), relational absence (*saṃsargābhāva*), and absolute absence (*atyantābhāva*). Mention of relational absence as a separate type of absence is peculiar to this treatise. It is that because of which Being, substances, and so on do not conjoin with or reside in a certain locus.[10] (1264a.2-10; 101)

13. The five kinds of substances — earth, water, fire, air, and internal organ—are mobile, are material (*mūrta*), have impetus (*vega*), and possess farness and nearness. The other four substances are contrary to these.[11] (1264a.11-14; 102)

14. All the 9 (kinds of) substances possess qualities, are inherence causes, possess substanceness, possess individuators, are not incompatible with their effects, and are causes dependent on other things. (1264a. 14-17; 102)

15. The 4 (kinds of) substances earth, water, fire, and air possess touch, produce substances, and are causal conditions for substances, qualities, and motions. The other 5 are contrary to them. (1264a. 17-19; 102)

16. The 3 (kinds of) substances earth, water, and fire possess color, are visible, and become objects of sight. The other 6 are contrary to them. (1264a.19-22; 103)

17. The 5 (kinds of) substances *ākāśa*, time, place, self, and internal organ are eternal, do not reside in another substance, do not consist of parts, are not incompatible with their causes, have ultimate individuators, and are spherical. As for the other 4 substances, the non-products are the same as the above mentioned, while the products are contrary to them. (1264a.22-24; 103)

18. The 5 (kinds of) substances earth, water, fire, air, and *ākāśa* are material substrates of sense organs. The other 4 are contrary to them. (1264a.24-28; 103)

19. The qualities of each substance, are enumerated, as shown in Table 1.

TABLE 1

	earth	*water*	*fire*	*air*	*ākāśa*	*time*	*place*	*self*	*internal organ*
color	x	x	x						
taste	x	x							
smell	x								
touch	x	x	x	x					
number	x	x	x	x	x	x	x	x	x
size	x	x	x	x	x	x	x	x	x
separateness	x	x	x	x	x	x	x	x	x
contact	x	x	x	x	x	x	x	x	x
disjunction	x	x	x	x	x	x	x	x	x
nearness	x	x	x	x					x
remoteness	x	x	x	x					x
judgment								x	
pleasure								x	
pain								x	
desire								x	
aversion								x	
effort								x	
weight	x	x							
fluidity	x	x	x						
viscidity		x							
dispositional tendency	x	x	x	x				x	x

merit								x	
demerit								x	
sound					x				
Total	14	14	11	9	6	5	5	14	8

(1264a.20-b.18; 103-105)

20. Color..remoteness (in Table 1), fluidity, viscidity and impetus are perceptible when residing in large substances composed of many substances, but imperceptible when residing in an atom or dyad. Sound is altogether perceptible. Judgment..effort, (in Table 1) are perceptible to (their) self. Merit, demerit, and dispositional tendency are imperceptible. (1264b. 19-25; 105-06)

21. Judgment..effort (in Table 1), dispositional tendency, merit, demerit, farness, nearness, and sound are products; the other qualities are either products or nonproducts. Products are transitory while nonproducts are eternal. (1264b. 25-c.8; 106)

22. Color..touch (in Table 1) and sound are respectively perceived by one sense organ; number..farness (in Table 1), fluidity, viscidity, and impetus are perceived by the visual and tactual sense-organs. (1264c. 8-10; 107)

23. The causes of each quality, especially of judgment, are discussed in detail. Perception is caused in 3 ways : (1) Ordinarily, perception is caused by the contact of four factors, viz., sense organ, object, self, and mind. (3) In respect to pleasure..effort (in Table 1), and the causal efficacy, lack of causal efficacy, limited universal, and Being resident in them, perception is caused by the contact of two factors, viz., self and internal organ.

Inference is caused by the contact of self and internal organ, which is preceded by the cognition of something in contact with, or co-inherent in the same thing with, or contradictory to the thing being inferred, and which (contact) is conditioned by the memory of the connection between the thing in contact with or co-inherent with, etc., and the thing being inferred.[12]

Doubt, ascertainment, imperfect knowledge (*avidyā*), and perfect knowledge (*vidyā*) are treated as subdivisions of perceptual and inferential judgments. (1264c.10-1265a.21; 107-10)

24. Color..touch (in Table 1) size, nearness, farness, judgment.. sound reside in one substance. Contact and disjunction reside in two substances. Number and separateness reside either in one substance or in more than one substance. (1265a.22-27; 110-11)

25. Color..farness (in Table 1), fluidity, viscidity, weight, and impetus pervade their loci. The other qualities are contrary to them. (1265a.27-29; 111)

26. Incompatibility between qualities and their effects or causes are explained in detail. (1265a.29-b.17 ; 111-13)

27. Every quality inheres in substances, possesses neither quality nor motion, is a noninherence cause, is a mark of the substance possessing it, is nonmaterial, and does not consist of parts. (1265.17-19; 113)

28. All the 5 (kinds of) motions inhere in one substance, are immaterial, possess no quality, do not consist of parts, are the causes of contact and disjunction, are productive and products, are nonaggregates, are the signs of the substances they reside in, are causes of dispositional tendencies produced by impulsion, etc., and have causes other than motions. (1265b.19-23; 113-14)

29. Throwing upwards, throwing downwards, and going reside in earth, water, fire, air, and internal organ. Contracting and expanding reside in large and long substances which are effects of a particular arrangement of very loosely connected parts. (1265b. 23-26; 114)

30. All the 5 (kinds of) motions pervade their substrata. (1265b. 26-29; 114)

31. The causes of motions are explained in detail according to the differences in the loci and the difference between the first motion and subsequent motions. (1265b.29; 114-16)

32. Being is not a product, is eternal, possesses neither quality nor motion, and does not consist of parts. It resides in substances, qualities, and motions, but not in causal efficacies, lack of causal efficacies, limited universals, and individuators. Being is one, and is the cause of the judgment that *A* is. (1265c.25-29; 116)

33. Individuators reside in *ākāśa*, place, and time, are the cause of the judgment that (this is) *ākāśa*, etc., are eternal, are not produced, possess neither quality nor motion, do not consist of parts, and are many. (1265c.29-1266a.2; 117)

34. Inherence is one, is eternal, is not produced, does not consist of parts, is immaterial, and is the cause of one thing inhering in another. The mark of its existence is the judgment that there is *A* here in *B*. (1266a. 3-4; 117)

35. Causal efficacy and lack of causal efficacy are not products, are eternal, possess neither quality nor motion, do not consist of parts, and are immaterial. There are many of them, and they differ according as they reside in substances, qualities, or motions. The judgments

that *A* is efficacious, *B* is not efficacious, and the like are their marks. (1266a. 5-8; 117)

36. Substanceness pervades the category of substance, inheres in substances, is one, is immaterial, does not consist of parts, possesses neither motion nor quality, is eternal, and is not a product. This applies correspondingly to qualityness and so forth. (1266a. 8-11; 118)

37. Prior absence is transitory. Posterior absence, reciprocal absence, and absolute absence are eternal. Relational absence is either eternal or transitory. (1266a. 12-19; 118)

38. All the 5 (kinds of) absences are not objects of perception. (1266a.19-21; 119)

39. All the 10 categories are cognizable (*jñeya*) and nameable (*abhidheya*). (1266a. 21-22; 119)

7. BHĀVIVIKTA

This writer is mentioned in a Buddhist work of the 8th century by Śāntarakṣita. Bhāvivikta is said to have written a commentary on a *Nyāyabhāṣya*, presumably Vātsyāyana's.[1] Scholar's estimates of his date vary.

Steinkellner[2] places him after Uddyotakara, but Oberhammer[3] dates him 520 to 580, since he identifies him as one among certain teachers who flourished prior to Uddyotakara and to whom Jayanta refers.

The views which are attributed to him by Śāntarakṣita are the following :[4]

1. Since the ego-making faculty (*ahaṃkāra*) is self-cognizable, the self is perceptible and can be proved thereby.

2. We can sometimes perceive substances without their qualities, e.g., in a shady place.

3. There is a distinct category of universals. Universals are the causes of names and concepts, and they are spoken about and known in a different way from individuals.

4. A view on perception.

5. The "reaffirmation" (*upanaya*) is an indispensable member of the inference pattern.

6. A view on the *prakaraṇasama* fallacy. Śāntarakṣita mentions Uddyotakara, Prīticandra, and Bhāvivikta as the major rivals of Dharmakīrti.[5]

8. PRAŚASTAPĀDA (PRAŚASTAMATI, PRAŚASTADEVA, PRAŚASTAKĀRADEVA)

Although the *Vaiśeṣikasūtras* are no doubt the most authoritative Vaiśeṣika source, it is the Vaiśeṣika system as seen through the eyes of Kaṇāda's most important commentator which is known as the standard old Vaiśeṣika. This writer is Praśastapāda, author of the *Padārthadharmasaṃgraha*. Frauwallner gives his date as the last half of the sixth century,[1] although other writers have attempted to place him earlier. E.g., Stcherbatsky argued[2] that Praśastapāda must have been contemporary with Vasubandhu, since Vasubandhu quotes Vaiśeṣika views which to our knowledge are only found in Praśastapāda. This line of argument has also been used by others[3] to push Praśastapāda's date back to an even earlier time than Vasubandhu's, for Vaiśeṣika views of a sort not precisely found in the *sūtras* are found in Harivarman, Āryadeva, and Vātsyāyana. Stcherbatsky's arguments, it has been pointed out by Randle,[4] depend on our assuming that there was no development in Vaiśeṣika theory between Kaṇāda and Praśastapāda, and there is no reason to suppose this to be the case.

Frauwallner[5] thinks that Praśastapāda is in his work trying to re-establish the *sūtrakāra's* views against, e.g., Candramati's system of 10 categories. He also shares with Guiseppe Tucci[6] the opinion that Praśastapāda went far beyond most members of his school in accepting a good deal of the Buddhist logical theory which was developed by Vasubandhu and Dignāga. Notably among such theoretical elements is the theory of the threefold mark (*trairūpya* or *trilakṣaṇahetu*), which was initially adopted by Nyāya and Vaiśeṣika, as well as Kumārila, but later given up by members of all the three schools (see. e.g., Jayanta and Pārthasarathi Miśra). Thus he concludes that Praśastapāda must have lived after Dignāga.

Thakur[7] has discovered that Mallavādin, the Jain philosopher, attributes to one Praśasta a commentary called *Ṭīkā* on the *Vaiśeṣikasūtras*, the *Vākya*, and *Bhāṣya*. Śāntarakṣita refers frequently to a Praśastamati.[8] B. Bhattacharya[9] remarked that this Praśastamati "seems to be different from the Vaiśeṣika philosopher Praśastapāda," but Thakur is inclined to identify them.[10] In Thakur's view, Praśastapāda wrote at least two works.[11]

PADĀRTHADHARMASAṂGRAHA (?PADĀRTHAPRAVEŚAKA)[12] (Summary by Karl H. Potter)

Numerical references preceded by "E" are to the edition by Durgadhara Jha which appeared as Ganganatha-Jha Grantha-

mala no. 1, Varanasi 1963. Those preceded by "T" are to the translation by Ganganatha Jha reprinted from the *Pandit*, Allahabad 1916. The topic numberings, according to which the material is organized below, are taken from the Ganganatha Jha translation.

Introductory Section. After paying his respects to God and to Kaṇāda (E1 ; T1), Praśastapāda lists the 6 categories specified in the *Vaiśeṣikasūtras* and says that to understand them, their similarities, and dissimilarities is to produce release (*niḥśreyasa*) (E15;T13). He adds that this understanding results from merit assisted by the injunctions of God. (E19; T16).

1-5. *The Categories.* The 9 substances, 17 qualities, and 5 motions are listed as in the *sūtras*; the word *ca*, which appears in the *sūtras* at the end of the list of qualities, was intended, says Praśastapāda, to indicate that 7 additional qualities are to be admitted. Thus Praśastapāda's list of qualities is the same as Candramati's.

6. In discussing motion, the fifth sort, "going" (*gamana*) is said to encompass all kinds of movement other than upwards, downwards, contracting and expanding motions. (E20-28; T17-24)

7. A universal is defined as the cause of our idea of similarity. There are two kinds of universals. The higher kind is Kaṇāda's "Being" of *Vaiśeṣikasūtra*, sections 5-6, 11, etc. above. It is the one proper universal, since its object is the most comprehensive and since it functions only to assimilate, not to distinguish. The lower universals, such as substanceness, both assimilate and distinguish things. (E29-30; T25)

9. Inherence is defined as the relation which holds between a substratum (*ādhāra*) and a superstratum (*ādheya*) which are inseparable (*ayutasiddha*). It produces the judgment "Here there is an object (of a certain kind)." (E 36-37; T30).

Similarities and Differences among the Categories

11. All 6 categories have the properties of existing (*astitva*), nameability, and knowability. (E41; T37).

12. All things except the eternal ones are resident in something (other than themselves). (E42; T38).

13. The first 5 categories are the kinds of things other things can inhere in. (E42; T39)

14. The last 5 categories have no qualities and no motions. (E43; T39)

15. The first 3 categories are related to Being, have both univer-

sals and individuators, are called "things" (*artha*) in the (technical language of the) system, and are the agents (*kartṛ*) of merit and demerit. (E43-44; T40)

16. A thing is noneternal only if it is caused. The first 3 categories are effects, and thus noneternal. (E46; 42)

17. All things belonging to the first 3 categories can be causes except sphericity, etc. (E47; T43)

18. Members of the first 3 categories, except for the eternal substances, reside in substances. (E48; T44)

19. The last 3 categories share the following characteristics: they are self-sustaining, are marked through judgments, are neither effects nor causes of anything, are without universals or individuators, are eternal, and are not called "thing" (in the technical sense). (E49; T45)

20. Each of the 9 (kinds of) substances have the capacity for being the cause of something else's arising and being resident upon it, have qualities, are not destroyed by their causes or their effects, and are individuated by the ultimate individuators. (E54; T49)

21. All substances, except wholes, are not resident in anything else and are eternal.

24. *Ākāśa*, time, and place are omnipresent (*sarvagata*), of the largest dimension, and constitute a common locus for all things. (E58-59; T54)

25. Earth, water, fire, air, and *ākāśa* are elemental, are the material substratus of sense organs, and have respectively the qualities perceptible by the appropriate sense organs. (E59;T54)

29. All the elemental substances, together with the selves, have specific qualities (*viśeṣaguṇa*). (E64; T59)

31. The specific qualities of ākāśa and the selves are momentary and are non-locus-pervading (*ekadeśavṛtti*). (E65; T59)

32. Place and time are the instrumental causes of all originations. (E65; T60)

33. Earth and fire have instrumental (*naimittika*) fluidity. (E67; T61).

The Substances

36. Earth has the qualities in Table 1. It has 6 kinds of taste, 2 kinds of smell (good and bad !). Its temperature is neither warm nor cold; warm temperature is produced in it by cooking (*pāka*). (E70-73; T65)

There are 3 sorts of noneternal earth: bodies, sense organs, and

objects. Earthy bodies are of two kinds : born of the womb, and not so born. Gods and sages have bodies of the latter kind, born from atoms acted upon by meritorious *karma*, while little insects have bodies born from atoms acted upon directly by bad *karma*. The two kinds of bodies which are born from the womb are the viviparous and the oviparous. The sense organ of smell is made up of earth particles undominated by particles of other substances. There are 3 kinds of earthy physical objects : clay, stone, and vegetable. (E78-87; T66-67)

37. Water has the qualities in Table 1. Its noneternal variety also has 3 subdivisions : bodies, organs, and objects. Watery bodies are not born from the womb and exist only in Varuṇa's part of the universe. The watery sense organ is the sense of taste. (E90-96; T81-82)

38. Fire has the qualities in Table 1 and its divisions as discussed under the previous substances. Fiery bodies exist in the region of the sun. The fiery sense organ is the visual organ. And there are 3 kinds of fiery objects : earthly, heavenly (the sun, organic, which brings about digestion), and mineral (gold). The fact that gold has taste is explained by the fact that it is mixed with earth. (E97-101; T88)

39. Air's qualities are as before, and its subdivisions parallel to those above. Airy bodies exist in the region of the Maruts. Touch is the airy sense organ. The air we perceive as such is in fact the substratum of all touch. Though it is invisible, yet we can infer that it is many from the behavior of wind. Breath is the air in the body. (E101-120; T100-101)

40. Creation and destruction of the above 3 substances. At the appropriate time for dissolution of the universe (i.e., every 100 Brahma-years) God gets a desire to dissolve the universe. Simultaneously all the unseen (*adṛṣṭa*) potentialities of the selves cease to operate. As a result the atoms in bodies and sense organs are disrupted and their combinations are broken, and so everything breaks down to the ultimate atoms, which finally remain in separation from each other along with the selves. But the selves are still accompanied by their merit and demerit and their dispositional tendencies.

Then, in order that Beings may enjoy, God conceives a desire to create, and there are produced in the air atoms certain motions resulting from the dispositional tendencies in the selves, which tendencies begin to operate again. As a result the atoms combine into dyads, triads, etc. until the atmosphere we know is created. Then in the same fashion water, earth, and fire come to be in the fashion

we know them. (E121-31; T108-11)

41. *Ākāśa* has the qualities in Table 1. Its postulation as the locus of sound is inferred through elimination. Sound cannot be a quality of tactile substances since it is perceived elsewhere than in such substances. It cannot be a quality of the self, since it is perceptible by an external sense organ and is perceived by other selves. Nor is it a quality of place, time, or the internal organ, since it is perceptible by the ear and is a quality specific to its location. Thus an additional substance, *ākāśa*, must be inferred as the locus of sound.

There is only one *ākāśa*, since sound occurs everywhere in it. Thus it must be separate, all-pervading, and eternal. But because it is the cause of individual sounds it must have contact and disjunction. An auditory organ is that portion of *ākāśa* enclosed in the part of the physiognomy called the ear. Its auditory powers are aided by the merit and demerit of the self inhabiting that body. Deafness is brought on by these additional causes, since the auditory organ is by nature endowed with the power to hear. (E143-52; T128-30)

42. Time is inferred from the characteristics of being before and after, simultaneity, succession, etc. It is the instrumental cause of the production, maintenance, and destruction of all produced things. Its qualities are in Table 1. There is only one "big" time (*mahākāla*), though it gets diversified by the conditions which help bring about the changes of production, maintenance, and destruction, just as the crystal and the cook get diversified in color or function by the relationships they enter into. (E155-60; T140-41)

43. We infer the existence of place from the fact of there being directions like "east," "south," etc.—these referring to relationships between one material object and another lying in some direction from it. Its qualities are in Table 1. Like time, it is single but diversified by the *relata* of those relations of which it is the locus. (E165-67; T147-48)

44. We infer the existence of a self (since it is imperceptible) :

(1) By analogy from the necessity of postulating an agent for an action; just so in cognizing a sound we must postulate a cognizer. By elimination this cognizer cannot be any of the other substances because they are all unconscious. This lack of consciousness in the other substances is shown as follows. Dead bodies are not conscious, so the body is not intrinsically conscious. We have consciousness even when each of the sense organs is not in contact with its object. Indeed, we may remember even after our sense organs are destroyed. As for the internal organ, if it could function independently of the other organs, perception and memory would occur simultaneously

Moreover, just as a chariot needs an intelligent charioteer to steer it in the right direction, so the body needs an intelligent guiding agent to steer it correctly.

(2) Additional arguments for the existence of the self derive from the actions of breathing, winking, healing up of wounds, attending—respectively, there must be a blower, a puller, a doctor, a something which directs attention.

(3) The qualities of pleasure, pain, desire, hate and effort cannot belong to the body or the sense organs, for unlike the body and the sense organs the ideas of pleasure, etc., are always attributed to "me" and do not vary or disappear with the variation or disappearance of the body or sense organs.

(4) The very fact that we use the word "I" shows that a self must exist.

The qualities of selves are in Table 1. The fact that the qualities of one self do not produce the appearance of qualities in other selves shows that there are many selves and that they each have their own *karma*. (E167-215; T152-54)

45. We infer the existence of an internal organ from the facts (1) that we do not always attend to objects which are near our self or our sense organs; (2) that we experience pleasure, etc., which are not objects of external sense organs. The qualities of the internal organ are in Table 1. There is one internal organ for each body, since effort does not occur simultaneously with judgment, and it has minute size. It moves quickly and is intrinsically unconscious. (E216-26; T198-99)

The Qualities

50-51. All the qualities except contact, disjunction, the number *duality* (*dvitva*), and the separateness between two things (*dvipṛthaktva*) are qualities which occur in one thing at a time. (E230; T211)

52-53. Qualities are divided into specific and generic. Number, size, separateness, contact, disjunction, farness and nearness, weight, instrumental fluidity, and impetus are the generic qualities; the rest are specific. (E230-31; T212)

54-57. Qualities are further classified as (1) perceptible by one of the external sense organs only (sound, touch, color, taste, smell); (2) perceptible by two sense organs (number, size, separateness, contact, disjunction); (3) perceptible by the internal organ only (judgment, pleasure, pain, desire, aversion, effort); (4) not perceptible at all (weight, merit and demerit, dispositional tendency). (E231-36; T212-16)

58-74. This section discusses the causative relations of qualities. Certain qualities may be produced by like qualities in the inherence causes of their substrata : color which is not produced by cooking, taste, smell, touch, size, the number one (—unity, *ekatva*), separateness of one thing (*ekapṛthaktva*), weight, fluidity, viscidity, and impetus. Certain qualities are produced by contact: judgment, pleasure, pain, desire, aversion, effort, merit and demerit, dispositional tendency, sound, measured size, secondary contact, instrumental fluidity, farness and nearness. Contact, disjunction, and impetus are caused by motions. Sound and secondary disjunction are produced by disjunction. Farness and nearness, duality and separateness of two or more things are dependent upon our judgments.

Again, some qualities produce their likes: color, taste, smell, touch which is not hot, sound, dimension, unity, separateness of one thing, viscidity. Others produce qualities both like and unlike themselves: contact, disjunction, number, weight, fluidity, hot touch, judgment, merit and demerit, dispositional tendency. Some qualities produce qualities only in things other than their own locus; other qualities produce qualities both in their own locus and elsewhere. Certain qualities produce motions: weight, fluidity, impetus, effort, merit and demerit, contact. The following qualities are noninherent causes: color, taste, smell, non-hot touch, number, size, separateness of one thing, viscidity, sound. The following can be instrumental causes: judgment, pleasure, pain, desire, aversion, effort, merit and demerit, dispositional tendency. Contact, disjunction, hot touch, weight, fluidity, and impetus can be either noninherence or instrumental causes, whereas farness and nearness, duality and separateness of two or more things cannot be causes at all. (E236-47; T216-28)

75-78. Certain qualities may occur in only part of their locus: contact, disjunction, sound, and the specific qualities of the self. On the other hand, certain qualities exist as long as their loci do: color not produced by cooking, taste, smell, touch, size, unity, separateness of one thing, natural fluidity, weight, and viscidity. (E247-49; T224-26)

79. There is a lower universal for each of the kinds of quality by virtue of which each instance of that kind gets its name—e.g., a given color gets called a "color" because it is related to a universal (*colorness*). (E250; T227)

Now each of the qualities is reviewed in detail.

80. Color is perceptible by the visual organ, resides in earth,

water, and fire, and is divided into various shades. It is eternal in water and fire atoms, but in earth atoms it can be destroyed by cooking. It is destroyed when its locus is. (E251-52; T228)

81-83. Taste, smell, and touch are discussed. (E254-56; T230-32)

84. Praśastapāda explains the process called "cooking" which results in the production of (a new) color in earth atoms. An unbaked jar is put in the fire. The fire produces motion in the atoms composing the jar. This produces disjunctions which destroy the contact between the components of the jar, and when the jar has been broken down to its elemental particles, the heat of the fire causes the atoms to lose their previous color and to take on the color produced by cooking. Now these atoms, with their new colors, come into contact with selves through the operation of the *adṛṣṭa* of those selves (who are destined to experience the jar), and this contact produces motion in the atoms, which results in contact, which results in the formation of larger wholes until the jar is "reconstituted." At each stage of this building up the color of the parts produces a similar color in the whole produced. The reason for this complicated account is that it is impossible for fire to pervade all the atoms of the jar at once, both outside and inside, without completely burning up and destroying the jar and its component macro-parts. (E257-62; T233)

85. Next there is a lengthy discussion of the quality number. Numbers reside in both single things and collections of things. The number of single things—one—is to be thought of parallel to the color of an atom. The numbers of collections range from the number two to a number called *parārdha* (a very large number !). *Problem* : How to account for the appearance and disappearance of the notions of "two," etc.? *Answer*: It comes with the cognition of the number one in each of several things in contact with the visual organ at once, and is destroyed by the destruction of the cognition of the distinction between the various things. In more detail : (1) There is contact of two objects with the eye of a knower. This produces (2) a judgment of the universal *oneness*, which is gained through the fact that the universal *oneness* inheres in the quality one which inheres in each of the two substances which are in contact with the visual organ. From the universal *oneness* in its relation to the quality one and from our judgment about it there arises (3) the single judgment of two *one*-qualities. (This single judgment is technically called an *apekṣābuddhi*, which Kuppuswami Sastri translates as "enumerative cognition."[13]) In a similar fashion, from presentation of the two single things in this enumerative cognition there arises (4) the

quality *two* residing in the pair of substances. And from this there arises (5) the judgment concerning the universal *twoness*, along with the decline of the enumerative cognition and the beginning of a judgment concerning the quality two—all of these occurring at one moment. Next (6) the enumerative cognition is destroyed, the quality *two* declines, judgment of that quality destroys the judgment concerning the universal *twoness*, and a judgment of the substances in their duality begins—all this again occurring at one moment. Then (7) the judgment "(these are) two substances" arises to full awareness, *two* (the quality) is destroyed, the judgment of it declines, and a dispositional tendency (or trace) is laid down —all in one moment. Finally (8) the judgment of two is destroyed and the trace destroys judgment of the substances.

Similarly one explains the genesis of *three* and the rest.

Sometimes the ideas of two, etc., are destroyed by the destruction of the substances themselves.

Part of the point of this theory is to keep it consistent with the general theory that in order for one stage in a process to destroy the previous one that previous one must be capable of destruction. On other theories the judgment "(these are) two substances," which comes to fruition in stage (7) above, could not arise, since *two* will have been destroyed before the judgment concerning two substances has arisen. Thus the complications about the beginning and decline of certain segments in the process.

Objection : Why can't the judgment "(these are) two substances" arise from the judgment of *two* even in the absence of *two*, just as in inference one can prove the conclusion merely from knowledge of the *hetu* even though the *hetu* does not at that time exist. *Answer*: The analogy is not apt, for in the present case the substances are related to the quality by a relation of nondifference (*abheda*), while in inference the *hetu* and the judgment about the *hetu* are not related by such an entity. *Objection*: Your view also will not allow the judgment "(these are) two substances" to begin to arise in stage (6), for it is accepted Vaiśeṣika doctrine that an idea terminates as a trace in the third moment of its "life"; thus, the enumerative cognition being in its third moment, only its trace exists and it cannot participate in production of a judgment about two substances. *Answer* : No, for traces are only produced by composite (*samūha*) judgments (and thus the enumerative cognition leaves no trace). *Opponent*: But this undermines the whole theory by allowing simultaneous cognitions. *Answer* : Not so, for the rule barring simultaneous cognitions must be modified so as to bar only the simultaneity of two fully existent

cognitions; cognitions which are in the process of decline cannot destroy. (E267-95; T241-45)

86. Size is the cause of judgments of measurement. It is of 4 kinds : minute, large, long, and short. The large size is of two kinds: eternal and noneternal. *Ākāśa*, place, time, and selves have the eternal large size, while the triad (*tryaṇuka*) and other middle-szed wholes have the noneternal sort. There are also eternal and non-eternal forms of minute size. Atoms and internal organs have the eternal kind, known as "sphericity"; the dyad has the noneternal sort. Middle-sized objects come to have these terms "large" and "small" applied to them in a relative fashion.

All 4 kinds of noneternal size depend on number, size, and aggregation (*pracaya*) as their source. The plurality in number of the atoms and dyads composing macro-objects creates length and size along with color, etc. When two middle-sized objects combine to produce a larger one, the size of the latter is determined by the sizes of its components. But when one rolls two balls of cotton up into a single ball, the contacts between the component particles produce a single large object, not two conjoined ones : this is "aggregation."

Yogis are endowed with the ability to tell the minuteness of an atom from its shortness. (E314-31; T284-87)

87. Separateness inheres in single as well as in groups of substances. It is like number with respect to its eternality and non-eternality, except that unlike number the specific separateness qualities are always qualified by a number, e.g., "this one is separate," "these two are separate," etc. (E332-33; T299-300)

88. There are 3 kinds of contact: (1) contact produced by the motion of one of two things; (2) contact produced by the motion of two things together; (3) contact produced by contact. The idea of (3) is that if something is in contact with x, and x is inhered in by substance y, then that thing is in contact with y. In this way effects come to be in contact with things which are not their cause but are conjoined with their cause—e.g., an earthy dyad in contact with two conjoined water atoms is also in contact with the dyad they produce. All contacts are caused, and so none are eternal.

When atoms conjoin with *ākāśa* the contact is of the first type above and is spoken of as part-occurring (*pradeśavṛtti*). Two all-pervading things do not contact each other since they do not exist separately from each other.

Destruction of contact is produced by disjunction inhering in one of the things conjoined, or sometimes also by the destruction of those things. (E335-62; T301-04)

89. Disjunction has 3 kinds : (1) that produced by the motion of one of two conjoined things, (2) that produced by the motion of both of two conjoined things; (3) that produced by another disjunction. The third sort has 2 subvarieties : (a) that produced from disjunction of causes, and (b) that produced by disjunction of cause and non-cause. The former happens when, say, the atoms making up a substance move away from a place, thus breaking the contact among them and destroying the substance. The latter occurs when one waves his hand.

Objection: This would result in a whole being separate (*yutasiddha*) from its parts, which is absurd. *Answer*: No, for "separate" means something different with respect to eternal substances from what it means with respect to noneternal ones. "Separate" means "resident in distinct loci" when applied to noneternal things, but not with respect to eternal things: there "separate" means "possessing separate activity." Therefore an atom and *ākāśa*, for instance, though not resident in any loci, are nevertheless separate (and so not related by inherence) since the former is capable of motion without dependence on the latter.

Disjunction, unlike contact, is of momentary duration. Sometimes disjunction is destroyed by the destruction of its locus. E.g., in two yarns that cross in a cloth, there may be movement of one part of one yarn which not only disjoins that part from the rest of the one yarn but also disjoins the whole first yarn from the second. This taking one moment, at the next the conjunction of the yarns ceases and then the whole yarn is destroyed. Therefore, by the same token, the disjunction of the second yarn is destroyed. (E363-92; T326-31)

90. Farness and nearness are of 2 kinds : (1) relating to directions in space, (2) relating to temporal relations. We get our ideas of distance from calculating the number of contacts between us and an object ; by contrast with the number of contacts between us and another object this leads to relative notions of "farther" and "nearer." Likewise various symptoms of aging lead us to judge that one man is older than another.

The destruction of these qualities leads Praśastapāda into the same kind of complexities we found in considering number. The reason for this is that, as in the case of numbers greater than one, an enumerative cognition may have to be destroyed and this raises difficulties about the stages in the process. Since sometimes destruction of farness and nearness may also involve destruction of contact or destruction of the substances involved, there are several distinct kinds of cases to consider. (E393-410;T352-57)

91-93. The next quality to be considered is judgment (*buddhi-upalabdhi-jñāna-pratyaya*). It has indefinitely many kinds since its contents are indefinitely many and different. However, the main distinction is between perfect knowledge (*vidyā*) and imperfect knowledge (*avidyā*). There are 4 kinds of imperfect knowledge: (1) doubt, (2) error (*viparyaya*), (3) indefinite knowledge (*anadhya-vasāya*), and (4) dream (*svapna*). (E410-11; T363-65)

94. Doubt occurs when we perceive the similarities between two objects which we recall to have different properties, and due to this plus some kind of demerit we ponder the alternatives. It has an internal and an external variety. An example of the internal kind is an astrologer who is doubtful whether to predict an event on the basis of certain conditions when predictions on the basis of those conditions have been verified in only some of the past instances. External doubt can be of perceptible or imperceptible objects. The latter occurs when we wonder whether a pair of horns in the forest belonged to a cow or a *gavaya*, the former occurs when we are not sure whether what we see is a post or a man. (E411-14; T369-70)

95. Error occurs when, due to a defect in the sense organs, the trace of a previously perceived thing produces contact between internal organ and self, which in combination with demerit produces an erroneous idea, e.g., of "horse" with regard to a cow. Such errors arise both with respect to perception and otherwise. For example, we often mistake steam for smoke and thus infer fire. Likewise people are deluded by heterodox theses, such as those of the Buddhists, and think they are beneficial; or they think the body is the self, etc. (E423-26; T374-75)

96. Indefinite cognition occurs when we wonder about something "what can it be?" An example is puzzlement with respect to a jackfruit tree on the part of someone from another part of the country where jackfruit does not grow. In such a case the observer perceives that the object is a substance, earthy, a tree with a certain color, etc. Indeed it even includes perception of the universal jackfruittreeness; all that is lacking is the knowledge that the term "jackfruit" is appropriate in designating this tree. (E434-35; T384)

97. Dreams occur when the sense organs have stopped functioning and have retired. Then through contact between the inner cause (*antaḥkāraṇa*) and the self produced by *adṛṣṭa* the internal organ stands still in the heart disconnected from the sense organs and moves, and the result of this motion together with breathing and traces is to produce dreams of things which are unreal. Dreams are of 3 kinds: (1) due to the strength of the traces; (2) due to defects in the body;

(3) due to *adṛṣṭa*. (1) We sometimes dream of the things we have thought hard about when we were awake. (2) When wind is predominant in the body a man may dream of flying. (3) Sometimes our dreams presage good things: these proceed from *dharma*—e.g., when we dream of riding on an elephant or obtaining an umbrella. Sometimes we dream of bad symbols, such as rubbing of oil and riding camels—these are produced by *adharma* together with the traces of these kinds of things. Sometimes we dream of things completely unknown in waking life; these dreams proceed completely from *adṛṣṭa*. The cognition called "dream-end cognitions," although it does not proceed from sense organ contact and so may seem to fall into the definition of dream, is in actuality only a form of memory. (E436-41; T386-88)

98. Perfect cognition is also of 4 kinds : perception, inference, memory, and that derived from authority (*ārṣa*). (E441; T390)

99. Judgments proceeding from one or more of the 6 sense-organs are termed perceptual. Perception of substances comes in 2 ways : (1) Just perceiving the thing in its own nature. Here a middle-sized object is perceived when there is a causal nexus (*sāmagrī*) of merit, etc., when there is a fourfold contact which results in the presentation of manifested-color (*udbhūtarūpa*) possessed by many substances. (2) Perception which arises from contact between the internal organ and the self in dependence on qualifiers (*viśeṣaṇa*) —universals, individuators, substances, qualities, and motions —and results in judgments such as "this white earthy substance which is a cow is moving."

Perception of the qualities of color, taste, smell, and touch result from the appropriate sense organs and is caused by these qualities inhering in several component substances, the peculiar differentia of the qualities themselves, and contact with the loci of the qualities. Perception of sound comes from a threefold contact; since sound inheres in the ear it is known only by that organ. Number, size, separateness, contact, disjunction, farness and nearness, viscidity, fluidity, impetus, and motion are grasped by the visual and tactual organs because of their inherence in perceptible substances. Judgments, pleasure and pain, desire, aversion, and effort are perceived through the contact between internal organ and the self.

Universals, when they inhere in perceptible loci, are perceived by the same sense organs that perceive those loci.

However, in yogis in a state of ecstacy there arises direct insight into the natures of the yogis' own and other selves, into *ākāśa*, place and time, atoms, air, and internal organ, as well as the qualities,

motions, universals, and individuators resident in these, and also into inherence. This insight is brought about by the internal organ aided by merit produced from yoga. As for nonecstatic yogis, they have perception of subtle, hidden, and distant objects through the fourfold contact of their internal organ as aided by the merit born of yoga.

Now the instrument of valid knowledge is perception of the first kind, i.e., perceiving a thing in its own nature with respect to its universals and individuators. An object of valid knowledge is a member of one of the categories—substance, etc. The self is the knower. And the resulting valid cognition is a judgment whose content is substance, etc. Cognition of the universals and individuator of a thing is not due to any instrument of knowledge other than the direct perception of the thing's own nature, since it is not a result (=fruit).

Alternatively, the instrument of valid knowledge may be considered to be the nondeviant (*avitatham*), *avyapadeśya* knowledge of a thing—anything—produced from fourfold contact. Then the object is substance, etc.; the self is the knower; and the resulting cognition is the insight into the good, bad, or indifferent qualities of the thing. (E442-75; T391-93)

100-01. Inferential knowledge proceeds from perception of the *liṅga* (=*hetu*). Kāśyapa (i.e., Kaṇāda) is quoted both as to the definition of a valid *hetu* and the 3 types of fallacious *hetus*. (E476-80; T420-22)

102. A valid *hetu* (*h*) must (1) be concomitant in time or place with the object to be inferred, (2) reside in either the whole or part of something in which the *sādhya* (*s*) resides, (3) be validly known to be absent from the whole of that which is different from the *s*. (E480-81; T423-24)

104. When one who knows the rule "wherever there is smoke there is fire; where there is no fire there is no smoke" has a nondoubtful (*asaṃdigdha*) perception of smoke, through the memory of the rule he comes to conclude "this is nothing other than fire." Thus whenever the condition of invariable concomitance (*avinābhāva*) is satisfied one thing becomes the *h* of another. This account does not conflict with *Vaiśeṣikasūtra* IX.18-21.

Inference is of 2 kinds: *dṛṣṭa* and *sāmānyatodṛṣṭa*. The *dṛṣṭa* kind occurs when *s* and *h* have absolutely the same universals—e.g., when one has seen dewlaps only on cows and infers from a subsequent dewlap to the presence of a cow. The *sāmānyatodṛṣṭa* kind occurs when *s* and *h* have absolutely different universals, but we infer the *s* from the general concomitance of a property with *s* and *h*:

e.g., when we infer that since men of various sorts—farmers, traders, servants—act for a purpose we infer that even men who act for no visible purpose must nevertheless have a purpose. (E491-510; T432-33)

105. Verbal testimony and the other instruments of knowledge belong under inference, for these others also involve invariable concomitance together with a nondoubtful perception. (E512-521;T448)

106. Knowledge from gestures is a form of inference since only one who knows the meaning of the gesture understands it. (E529; T466)

107. Comparison is a special case of verbal authority, since it depends on the testimony of a trustworthy person. (E530; T466)

108. Presumption is inference to what is contrary, whether based on perception or on verbal authority. (E534; T472)

109. Concurrence (*sambhava*) is also a kind of inference. (E542; T477)

110. Nonapprehension is also inference, for just as the occurrence of the effect indicates the existence of a cause, so the nonoccurrence of the effect indicates the nonexistence of the cause. (E542-43; T478)

111. Tradition (*aitihya*), when correct, is trustworthy assertion. (E558; T490)

112-14. Inference for others is explained. The hypothesis or first member of the 5 membered argument identifies the *pakṣa* (*p*) qualified by the *s* and indicates that *p* is the locus of *h*. It must not be contrary to perception, inference, or scripture and it must not contradict itself. (E558-76; T491-506)

115. Fallacies of the *h* are subdivided (here) into 4 types:

(1) *Asiddha*. This has 4 subdivisions:

(a) Where the *h* is characterized in a way not recognized by either party in the debate.

(b) Where *h's* characterization is recognized by only one party in the debate.

(c) Where *h* is mischaracterized—e.g., when intending to prove fire through smoke a person actually offers steam as his *h*.

(d) Where the *p* is not recognized by one or both of the disputants.

(2) *Viruddha*. The contradictory *h* does not reside in the *p* but does reside in what has contradictory properties to *p*, and thus it proves the opposite of what is intended.

(3) *Saṃdigdha*. An *h* which resides in things both like and unlike *s* is doubtful. Some say that when reasons both favorable and unfavorable to the conclusion are put forward this is also a case of this

fallacy. Praśastapāda provides a separate classification (4 below) for this case. Doubt never arises from two contradictory *hetus* of equal authority, for in such a case no definite proposition could be formulated.

(4) *Anadhyavasita*. This is Praśastapāda's added type of fallacy; we may translate it "uncertain." An uncertain *h* is one which is found only in the *s* and so produces uncertainty—e.g., "the effect is an entity, because it is produced." (E576-98; T507-10)

116-17. The examples are discussed, and 6 fallacies for each of the two examples (*sapakṣa* and *vipakṣa*) are identified. Thus in the argument "sound is eternal, because it is immaterial" we can have:

(a) "like an atom"—here one or both parties do not agree that the *h* applies to atoms;

(b) "like a motion"—here one or both parties do not agree that the *s* applies to motions;

(c) "like a dish"—here the applicability of both *h* and *s* may not be accepted by one or both of the parties;

(d) "like darkness"—here one or both of the parties may reject the description "darkness" as having a locus at all;

(e) "like *ākāśa*"—where the connection between the example and the *h* or the *s* is not evident;

(f) "like a mobile substance"—where the *sapakṣa* is contrary to the *h* or the *s*.

A parallel classification is given for fallacies of the *vipakṣa*. (E598-99; T525-26)

118-19. The last two members are discussed. The reiteration of the first member constitutes the conclusion or last member. It is necessary to reiterate the hypothesis in order that the positive and negative concomitance between *s* and *h* as applied to *p* be fully expressed, as it was not in the first member. (E606-20; T530-37)

120. Ascertainment is the contradiction of doubt. It is the affirmative judgment produced by the perception of the individuating characteristics of things. It can be perceptual or inferential. The perceptual sort occurs when we distinguish a man from a post by eventually perceiving his differentia. The inferential sort occurs when we distinguish a cow from a *gavaya*. (E622-24; T545-46)

121. Memory arises when, aided by perception of a mark (=*h*), desire, and associated ideas, as well as by traces left by past cognitions, there is contact between self and internal organ. The traces in question may have been aided by repetition and by selective interest in the objects of the past cognitions. And the resulting memory may in turn become the cause of recollection of a part of the previ ous

cognition, of desire or aversion, and of further association of ideas. (E625-26; T547)

122. To sages who act in accordance with Vedic injunctions, due to the merit they earn thereby, there comes an intuition (*pratibhā*) about things past, present, and future, sensory and nonsensory, both the sort that the scriptures speak of and other sorts. This kind of intuition is called "sagelike" (*ārṣa*). Occasionally we find it even in ordinary human beings, as when a little girl knows in her heart that her brother is coming. (E627-28; T554)

123. The knowledge of people known as *siddhas*—occult knowledge—is not a distinct sort of judgment, but is either perceptual or inferential. For example, people who get to know things by taking drugs, etc., have special knowledge of a perceptual sort, while the knowledge of the precise ways in which *karma* is worked out in the lives of living things is occult knowledge of an inferential variety. (E629-30; T555-56)

This concludes the section on the quality judgment. Praśastapāda now turns to discussion of the other qualities.

124. Pleasure is a quality of agreeableness. It is produced by contact between self and internal organ, which contact is conditioned by the contact between the agreeable thing and the sense organ. These contacts, together with the merit of the self, bring about a certain feeling which has characteristic effects such as affection, brightening of the eyes, and so forth. With regard to past things pleasure can be produced by memory; with regard to future things by imagination (*saṃkalpa*). Wise men gain pleasure from their wisdom, peacefulness, and contentment and their special meritoriousness. (E630-32; T557)

125. Pain is what is harmful. Its varieties and causes are parallel to the ones explained in the case of pleasure, except that the feeling is disagreeable and the cause is demerit. (E633; T559)

126. Desire is wishing for something not yet obtained, either for one's own sake or another's. It causes effort, memory, merit, and demerit. It has several varieties : sexual (*kāma*), hunger, passion (*rāga*), compassion, disinclination, etc. (E634-36; T560)

127. Aversion is a burning; some of its varieties are anger, resentment, jealousy. (E637; T561-62)

128. Efforts are of two main varieties: (1) the kind arising from just living, and (2) the kinds issuing from desire and aversion. Breathing and selective attention upon awakening are given as examples of the former. (E638; T562-63)

129. Weight causes falling; it is imperceptible and known by

inference. It can be opposed by contact, effort, and dispositional tendency. (E640;T564)

130. Fluidity is of 2 varieties : (1) natural (*saṃsiddhika*) and (2) instrumental (*naimittika*). Fluidity is a natural quality of water, an instrumental quality of earth and fire.

An objector argues that fluidity cannot be a natural quality of water, for we find water in solid state as ice. *Answer* : No, here the natural fluidity of the water atoms is counteracted by the fire (= light) of the sky, so that the atoms combine to form solids.

The instrumental fluidity of earth and fire (*tejas*) is produced by contact with fire (*agni*). The fire produces action in the atoms of earth so that the cohesion of the solid substance is destroyed, and the atoms take on fluidity as a result. (E641; T566-68)

131. Viscidity is the *differentium* of water, and causes cohesion and smoothness. (E645; T570)

132. Dispositional tendencies are of 3 kinds : (1) impetus (*vega*); (2) traces (*bhāvanā*); (3) elasticity (*sthitisthāpaka*).

Traces are qualities of selves. They cause memories, and are counteracted by judgments, intoxication, and extreme pain, etc. Traces are produced by the vividness of judgments, their repetition, or a special effort. An example of the first is when a man from south India first sees a camel; of the third, when one makes a special effort to see the silver and golden lotuses in the celestial lake. (E646-59; T570-72)

133. Merit is a quality of men (= selves, *puruṣa*). It produces happiness and liberation. It is supersensible. It is destroyed by the experience of the final happiness. It is produced by contact between the self and the inner cause (*antaḥkāraṇa*) when conditioned by pure thoughts and decisions.

Different classes of men have different methods of acquiring merit, although there are also methods which are common to all. Both kinds are laid down in sacred and secular works. General causes of merit are : faith (*śraddhā*), nonviolence (*ahiṃsā*), love of mankind, speaking the truth, not stealing, chastity, purity of intent, lack of anger, bathing, use of purifications, devotion to particular gods, fasting, and nonneglect. The particular duties of the four classes of men (Brāhmaṇas, Kṣatriyas, Vaiśyas, and Śūdras) are detailed, and the particular duties of each of the four stages of life. (E659-72; T583-85)

134. Demerit produces undesirable results and is destructible by experiencing the last item of pain which it produces. It is produced

by doing prohibited actions, failing to perform prescribed actions, neglect, and impurity of motives. (E677; T598)

135-36. By performing acts which earn merit and demerit, a man earns his way from the human body to other bodies—divine, human, and animal, or even devilish—and this constitutes his bondage. When a man does meritorious acts without concern for the fruits he comes to be born in a pure family. Being desirous to know how to bring an absolute end to his pain, if he goes to a properly qualified teacher and learns the truth about the 6 categories he will become free from feelings, and as a result he will acquire no further merit or demerit. When his previous merit and demerit are exhausted, his further actions can only be from pure merit and productive of happiness. And when the body is cut off, there are no longer any seeds of further merit and demerit, and there ensues the cessation called liberation. (E678-82; T599-601)

137. Sound is the quality of *ākāśa*, perceptible by the auditory organ. It is momentary. It can be produced by contact, by disjunction, or by another sound. There are 2 kinds of sounds :(1) syllables (*varṇa*, perhaps "morpheme"?) and (2) noise (*dhvani*). The production of syllables results from a contact of the internal organ and the self when influenced by memory : first one desires to produce the sound of the syllable, then makes an effort. As a result there is contact between the self and air, which brings about motion in the air; the air moves up and hits the throat and the resulting contact brings about contact with *ākāśa* and the resulting sound. Sounds are always produced in a series, like a series of ripples in water, and when these waves reach the ear we hear them. (E692-96; T611-13)

138-42. The first 4 kinds of motions are discussed. (E697-700; T616-20)

143. The fifth kind of motion (*gamana*) is defined as that which brings about contact with points of space in various directions. An objector finds fault with this classification of motions, claiming that all motions satisfy the description. This is rejected on the basis of common experience : we know the difference between going up and going down, etc. The objector retorts that if so, there should be an indefinite number of kinds of motion since there are indefinitely many different motions distinguished in common experience. This is rejected on the basis of crossconnection of universals (*jātisaṃkara*), the fault being explained as involving one and the same event falling under several universals at once—e.g., if something could both be coming out of one room and going into another at the same time. Classification of motions on the basis of their direction produces no

such fault. The reason men find such diverse descriptions of the same motion is that they attend to particular patterns of contact and disjunction between the object and its parts and the points of space they successively occupy. (E700-08;T620)

145-48. Conscious movements of the limbs are discussed. It is the contact between the self and the hand (when one is raising his hand) that produces the motion, aided by the self's effort and the weight of the hand. A description of how one brings a stick down on something, striking (*abhighāta*) it—a conscious movement—followed by the bouncing up of the stick (an unconscious movement) follows. When this rebound action happens to the stick its impetus or momentum produces rebound motion in the hand. Descriptions of throwing and of shooting an arrow are presented in detail. (E713-25; T629-39)

149-53. Motion can be produced by striking, by impulsion, by weight, through fluidity, from dispositional tendencies, through contact between self and air aided by effort (in the case of the motion of breathing), through contact between self and internal organ aided by desires and aversions in the case of the motion of the sense organs.

Death occurs when effort, merit and demerit no longer function, or when they defeat each other. Then breathing stops, but due to further merit and demerit there is contact of self with internal organ which produces a disjunction of the internal organ from the dead body : this is called "going out" (*apasarpaṇa*). Outside it joins the subtle body which has been produced by the same merit and demerit, and this body proceeds to heaven or hell where it joins a new gross body which is a fit receptacle. The entrance of the internal organ into this new body is called "incoming" (*upasarpaṇa*).

Yogis' internal organs can leave and enter their bodies at will.

Motions of the elements for which we can find no other cause but which are favorable or harmful to us must be held to be caused by *adṛṣṭa* (=merit and demerit). E.g., the initial motions of atoms after creation, the attraction of iron to a magnet are such motions. (E726-40; T640-48)

154. Universals are of 2 kinds : higher and lower. A universal pervades its instances and occurs in the very same form in many things, and is the source of our ideas of class-inclusion, since it inheres in all its loci simultaneously.

The highest universal is Being, since it encompasses everything and excludes nothing. Lower universals exclude as well as include. Thus they are individuators as well as universals in that they differentiate as well as assimilate. (E741-47; T651-53)

155. Universals form a separate category since they are quite different in character from substance, quality, and motion. Universals are eternal. But they differ from each other since they reside in different sets of loci and people have a distinct notion of them. They exist throughout all the places their instances do, but they do not exist in the intervals in between. (E748-54; T656-57)

156. Individuators (proper) are the final differentiae of their loci. They occur in substances which are beginningless, indestructible, and eternal, such as atoms, *ākāśa*, time, place, selves, and internal organs. Just as we ordinary mortals have relatively differentiating notions by which we tell a cow from a horse, so yogis have the ability to distinguish one atom, or self, from another. An objector asks why yogis could not have this ability without their being anything in the things to differentiate them. The answer is that even yogis cannot correctly cognize something that is not there. Then, says the objector, since the individuator of atom *a* must be different from the individuator of atom *b*, why not just hold that *a* and *b* are self-differentiating? *Answer*: The atoms have the same nature as each other, and need something else to differentiate them. Furthermore, a thing never brings about judgments about itself but always about other things—e.g., a lamp brings about cognitions of a jar, but not of itself nor of another lamp. Individuators are self-differentiating, and it is due to the relation of the atoms with them that individuation occurs. (E765-71; T671-72)

157. Inherence connects things that are inseparably connected (*ayutasiddha*) and stand to each other in the relation of located and locus. It is the cause of our idea that "this is here." It appears in relation to substances, qualities, motions, universals, and individuators, both in causal and noncausal relations. It also holds between two things of medium dimension which are interdependent. (E773-75; T675-76)

158. Inherence is different from contact because (1) inherence requires inseparable connection, (2) inherence is not produced by motion of the relata, (3) inherence is not destroyed upon the destruction of the relata, (4) inherence requires that the relata be related as located and locus. (E775-76; T677)

159. Inherence must be a separate category since it does not satisfy the definition of any other others. There is only one inherence, for the same sorts of reasons that there is only one Being. (E776-77; T678)

160. *Objection*: If there is only one inherence there will be confusion of categories, since the same relation will relate members

of different categories. *Answer*: No, for the differences among the relata make it clear that the universal substance e.g., inheres in substances only and not in qualities or motions, etc. *Objector*: How do you know? *Answer*: From perception—we never find substanceness in a quality. (E778-81; T679-80)

161. Inherence is not transient like its *relata*, since it is not produced causally. *Objection*: How is inherence related to its *relata* ? Not by contact, since only substances can be in contact. Not by inherence, as inherence is single. And there is no third relation. *Answer*: It is related to its *relata* by identity (*tādātmya*). Just as Being is one and thus unrelated to any other Being, so inherence, since it is inseparable from its *relata*, can have no other relation to them and is therefore self-occurrent (*svātmavṛtti*). For this reason it is held to be imperceptible and known only through inference.

The work concludes with an invocation to Kaṇāda.

9. UDDYOTAKARA (BHARADVĀJA, PĀŚUPATĀCĀRYA)

Probably the most persistent champion of the Nyāya-Vaiśeṣika cause during the height of the period when the system was challenging and being challenged by Buddhist logicians such as Dignāga and Dharmakīrti is Uddyotakara, the author of the *Nyāyavārttika*. This work is an extended commentary on Vātsyāyana's *Nyāyabhāṣya*, in which its author develops many new arguments and sometimes presents new or alternative explanations for some of the *sūtras*.

Uddyotakara himself mentions his place of residence as Śrughna, which has been identified as a town in the Punjab on the west bank of the Jamunā about 40 miles north of Thāneśvar.[1] He identifies himself as "Pāśupatācārya," a teacher of the Pāśupata faith. Ganganatha Jha says the name "Bharadvāja" is specified by Vācaspati Miśra as Uddyotakara's family name.[2]

His date seems relatively certain. He must have lived after Dignāga and Praśastapāda, and probably he slightly preceded Dharmakīrti. In any case the *terminus ad quem* is defined by his being mentioned in Subandhu's *Vāsavadattā*, a Sanskrit work written before 705. Thus Uddyotakara cannot be earlier than the last half of the 6th century, and not later than the 7th;[3] Frauwallner[4] gives A.D. 650 for him; others incline to a slightly earlier date.[5] In any case he must have flourished during the first half of the 7th century.

The question of his relation to Dharmakīrti was discussed at length in a series of scholarly articles by various writers.[6] The discussion turned on Uddyotakara's references to some Buddhist logical texts

called *Vādavidhi* and *Vādavidhāna*, which Satischandra Vidyabhusana tried to identify with a work of Dharmakīrti's and a commentary thereon by Vinītadeva. Other scholars have concluded, however, that the works in question are those of Vasubandhu.

Uddyotakara has for some reason been the target of somewhat abusive criticism on the part of modern scholars. For example, Oberhammer writes : "Uddyotakara...was an author with decidedly polemic interest, who..was relatively uninterested in the true logical problems."[7] D. N. Sastri avers that "he...lacked the philosophical grasp and depth of Vācaspati Miśra. The latter is marked for his meticulous fairness to his opponents, but for Uddyotakara no stick was too big to beat his opponent with. Very often he argues by verbal twists which even Vācaspati Miśra, otherwise so reverent to him, feels constrained to criticize."[8] Even Henry Randle, though he estimates that "*Nyāyavārttika* is one of the world's great treatises on logic," goes on to add "though its greatness tends to be obscured by the atmosphere of incessant and often hypercritical polemic."[9] These, however, are remarks of Sanskritists and, in Sastri's case, one who believes the Buddhists excelled the Naiyāyikas in argument. This writer believes that a philosophical estimate of Uddyotakara's importance must give him a place second to none among exponents of Nyāya-Vaiśeṣika, if only because of the consistency with which he presents and defends the principles of realism against all manner of subtle idealistic arguments.[10]

NYĀYAVĀRTTIKA
(Summary by Karl H. Potter)

References preceded by "E" are to the edition by V. P. Dvived and L. S. Dravida, Banaras 1916 (B1104); those preceded by "T" are to Ganganatha Jha's translation which appeared in *Indian Thought* from Volume 4 (1912) on to 1919; the volumes are identified below by year.

BOOK ONE : PORTION ONE

Topic I : Subject Matter and Purpose

(E1-10; T (1912) 52-84). A science (*śāstra*) is ultimately concerned with the betterment (*śreyas*) of men, and functions to explain the true nature of things not known through perception or inference. The betterment of man is twofold : pleasure and the cessation of pain. The latter may be complete or only partial. Complete cessation of

pain involves the destruction of its 21 loci, namely (1) the body, (2-7) the sense organs; (8-13) their objects; (14-19) the corresponding kinds of judgments; (20) pleasure, and (21) pain itself.

An instrument of knowledge may either possess its object or fail to do so. A "false" instrument of knowledge is called an "instrument of knowledge" in a figurative sense, because it, like a proper instrument of knowledge, also grasps universals. However, the difference is that when one grasps an object by a proper instrument of knowledge, his resulting activity is successful (*sāmarthya*), while when he grasps it by a false instrument of knowledge his activity is not successful.

Objection: Since we can only know that an activity is successful by a proper instrument of knowledge, to claim that an instrument is proper only if the resulting activity is successful is a circular definition. *Answer*: No, there is an interdependence between the two judgments, but this is a beginningless interdependence and not vicious.

There follows a very detailed analysis of Vātsyāyana's opening sentence.

Objection: Perception grasps differentiating features, and inference grasps universal properties. There are just these two instruments of knowledge, and they never apprehend the same object. *Answer*: No. For one thing, besides differentiating features and universal properties we are also acquainted with the individuals which have these features and properties. For another thing, several instruments of knowledge may know one thing, as in the case of seeing and smelling the same piece of earth, although of course in seeing we grasp the earth through its color and in smelling through its odor.

Next, "instrument of knowledge" is defined as the cause of (valid) knowledge. *Objection*: But the knower and the object are also causes of knowledge. *Answer*: But the instrument, unlike the other two, has as its peculiar function the causing of knowledge. It is in turn produced by sense-object contact, which presupposes the existence of a cognizer and an object, and this series is beginningless. Furthermore, the instrument of knowledge is the effective (*sādhaka*) cause. An "effective" cause is one whose presence is both necessary and sufficient for the result, or alternatively it may be defined as the causal factor which, other general factors being present, comes as the last and most proximate cause in the series culminating in the effect.

Vātsyāyana's introduction might seem to imply that there are an infinite number of things in the universe. Uddyotakara, however, rejects this interpretation. What Vātsyāyana means, he says, is that there are innumerable purposes served by an instrument of knowledge.

Objection: If reality includes nonexistents as well as existents, as Vātsyāyana asserts, why does not Gautama list nonexistents among his categories? *Answer*: Some nonexistents are mentioned—e.g., release, which is defined as absence of pain—but only those are mentioned which are helpful in fulfilling man's purposes.

1. (E10-23; T (1912) 168-73, 180-96, 201-13, 214-16, 361) What is "perfection"? *Answer*: There are two varieties of perfection, seen and unseen. Seen perfection accrues from every true judgment; but if this were the only sense of "perfection," knowledge of all objects, and not just those listed by Gautama, would lead to perfection. Thus in the *sūtra* "perfection" means the unseen kind. *Objection*: There is no proof for this unseen perfection. *Answer*: See *sūtra* 2. But if perfection were limited to the seen variety, to which any true judgment contributes, everyone would gain release without trying, for everyone knows something or other correctly. Therefore, since release does not come so easily, we must conclude that it is the knowledge of the objects listed by Gautama which leads to release, and that release is not merely what we have called "seen" perfection but rather the "unseen" variety.

Uddyotakara submits that the purposes which incite men to action are not the well-known 4 "aims of life" but rather the attainment of pleasure and the avoidance of pain. It is these which lead men to investigate through reasoning.

With regard to Vātsyāyana's doubts as to whether sophistry is purposeful, Uddyotakara argues that it is purposeful in the sense that the sophist is adopting a position, even though he does not defend it.

In connection with the discussion of *tarka* an interesting example is provided: Uddyotakara says we can use *tarka* to help establish the proposition "birth is due to *karma*," by showing that there are grades of goodness and badness in the world and that this would be inexplicable without the assumption of a differentiating factor, namely *karma*.

Uddyotakara points out that there are 4 sciences—Vedic, agriculture, politics, and the science of the self—and that each has its particular scope and aim. Vedic science aims at heaven through knowledge of the proper methods of sacrifice. Agriculture aims at a successful harvest through knowledge of the soil, etc. Politics aims at maintenance of the kingdom through knowledge of certain arts of conciliation, gift-giving etc. And the science of the self aims at release through knowledge of the things listed in Gautama's list of things to be understood. It is not knowledge of every one of the 16

categories which leads to release, but only of certain particular categories detailed in the second *sūtra*.

2. (E22-23; T (1912) 362—64, 367-75, *Objection* : Release does not result from knowledge of reality, because if it followed directly, a man should die as soon as he achieves such knowledge, but we know that such men live. If we hold that they do not live, there could be no handing down of the truth through traditional sources, and if this were so, everyone's knowledge of reality would be his own fancy, uncorroborated by authority. *Answer* : There are 2 kinds of release. The lower kind, which occurs immediately following knowledge of reality, is experienced while one is still working off his past *karma*; it is characterized by freedom from pleasure and pain. But in this *sūtra* Gautama is speaking of the higher kind of release, which is attained by degrees.

Topic II : *The Instruments of Knowledge*

3. (E27-30; T (1912) 381-88) *Objection*: Inference cannot be an instrument of knowledge, for it is held to produce the correct cognition of an object, but this cognition is identical with the conclusion of the inference. *Answer*: In fact, this is characteristic of all the words for instruments of knowledge; they are all ambiguous. "Perception" sometimes denotes the result of perceiving, sometimes the activity of perceiving. Likewise "inference" sometimes denotes the result of inference (the judgment demonstrated) and sometimes the process of inferring. *Objector*: But even so, this does not answer my question, which is how inference can ever be considered an instrument for producing something else,since its result is contained within it. *Answer*: The result of inference, as well as the result of the other instruments of knowledge, is not the judgment demonstrated but rather the subsequent evaluation of the object as something to be gotten or avoided or ignored.

4. (E30-43; T (1913) 24-58) Sense-object-connection is of 6 kinds:

1. Contact (*saṃyoga*), e.g., when we see a jar there is contact between the visual organ and the jar.

2. Inherence is that which is in contact (*saṃyuktasamavāya*), e.g., when we see the color of a jar the color inheres in the jar which is in contact with the visual organ.

3. Inherence in what inheres in what is in contact (*saṃyuktasamavetasamavāya*), e.g., when we see the redness of a red jar, the redness

inheres in the red color which inheres in the jar which is in contact with the visual organ.

4. Inherence (*samavāya*), e.g., when we hear a sound, the sound inheres in the auditory organ (which is just *ākāśa*).

5. Inherence in what inheres (*samavetasamavāya*), e.g. when we apprehend the loudness of a sound, the loudness inheres in the sound which inheres in the auditory organ.

6. Qualifier-qualified-relation (*viśeṣyaviśeṣaṇabhāva*), e.g., when we perceive the inherence between a jar and its color, inherence is the qualifier of the color; or when we perceive the absence of something, the absence is the qualifier of its locus.

In connection with 4, a discussion is raised about the origin of the first sound in a series which results in a sound being heard. Uddyotakara says that this first sound is produced either by contact or by disjunction— by contact, e.g., when a drum is beaten, and by disjunction when a bamboo stick is broken. However, the cause of sound is not the contact of stick and drum, but rather the contact of drum with *ākāśa*, for if it were not so sound would be produced anywhere or everywhere.

Objection: There can be no connection between the visual organ and an object, because the organ operates without getting out to the object in certain cases. The visual organ grasps things far from it, and much larger than it. Furthermore, we say "the thing I see is east of me" while if "I," i.e., my visual organ, were where the object is we would not say this. Finally, the visual organ sees nearby things at the same time that it sees distant ones. *Answer*: How do you know the visual organ does not get out there? If you say "because we perceive the distance between the eyeball and the object," what is this "distance"? It cannot be *ākāśa*, since *ākāśa* cannot be seen, being colorless; and it cannot be any colored substance, since then the object would be blocked from view. Nor can it be mere absence, since no one sees *mere* absence.

Objector: Well, then, why do we say there is distance between me and the object I see? *Answer*: It is because the object is far from our body, not because it is far from the visual organ. As for your other reasons: You say that the visual organ cannot grasp objects larger than it, but this is false; everyone admits that the visual organ does not have to grasp all of its object in order to see it. Finally, we do not in fact see nearby things at the same time we see far-off ones; rather, the impression of simultaneity is due to our failure to discriminate the moments of time in question. In addition, the visual

organ must get at its object in order to grasp it, for otherwise walls and screens would not obstruct our vision.

With regard to mirages, some Naiyāyikas say that the erroneousness of the mirage is located in the object. But this is not right: it is not that the sun's rays are not rays, or that the flickering of the image is not a flickering; rather the error lies in the knowledge we have of something as what it is not, as water rather than as flickering rays of sunlight.

Uddyotakara differs with Vātsyāyana over the nonelementality of the internal organ. Vātsyāyana says it is nonelemental, but Uddyotakara says the question of its elementality cannot arise, since the question properly arises only with regard to products and the internal organ is not a product. He says that the auditory organ likewise is neither elemental nor nonelemental, since it is nothing but *ākāśa* and *ākāśa* is not a product.

Some people (e.g., the author of the *Vādavidhi*)[11] define perception as a judgment derived from its (proper) object. But this definition would not exclude inference. The objector claims that the *Vādavidhi* definition excludes cognition of conventional objects (*saṃvṛtijñāna*)[12] since the judgment "this is a jar" is a judgment about the color, hardness, etc. but is reported as a judgment about the jar; therefore, since it is not derived from its proper object, it is not perception. Uddyotakara retorts that this definition does not exclude cognition of conventional objects after all, since "this is the jar's color" is one judgment and "this is a jar" is quite another. In addition, he argues, even if one accepted this definition at its face value, the opponent's theory of perception is defective, since according to it the cause of perception precedes the perception and is destroyed before the perception takes place, so that the perception cannot be a perception *of* that which causes it. (If the opponent tries to argue that the same criticism applies against Uddyotakara's own theory, he is referred to the commentary on III.2.9.)

Other people[13] define perception as devoid of any conceptual construction (*kalpanā*), i.e., without any connection with a word or classification or relation to other things. Uddyotakara's criticisms: (1) Your definition is concerned with the word "perception." Now what does this term denote? If it denotes a judgment, then what is so denoted cannot be defined as "without any connection with a word." And if it does not denote a judgment, then either it denotes something else, in which case it is not a definition of perception, or else it denotes nothing, in which case it is meaningless. (2) Buddhist

scriptures speak of perception as "noneternal," etc.; so perception cannot be "without a connection with a word."

The Buddhist explains "devoid of conceptual construction" further. It is intended to refer to something whose essential nature (*svarūpa*) cannot be specified. But, says Uddyotakara, in that case everything would be known through perception, since according to the Buddhist there is nothing whose essential nature can be specified.

Jaimini's definition of perception, "a knowledge produced from sense-object-contact," is not correct, since it would not exclude doubt, as had indeed been remarked by commentators on the *Mīmāṃsā-sūtras*. Two or three other definitions are also rejected.

5. (E43-57; T (1913) 128-68) Uddyotakara's account of this *sūtra* construes it to mean, not that the inference must follow directly upon perception, but that it follows upon any of the instruments of knowledge, including another inference.

Now, is it the memory of the relation between *sādhya* and *hetu*, or the perception of the *hetu* together with the memory of the relation, which is the actual instrument we call inference ? Or is it the recognition in the *pakṣa* of invariable concomitance between *hetu* and *pakṣa*, the recognition called *liṅgaparāmarśa* ? Uddyotakara thinks that all three are involved, but that the last is the most important, since it is the most proximate cause of the completed inference.

Uddyotakara now turns to the part of the *sūtra* which says that inference is of 3 kinds. His first account of this is that the 3 kinds are (1) only-positive (*kevalānvayi*), where the *hetu* occurs everywhere, (2) only-negative (*kevalavyatireki*), where the *hetu* occurs in the *pakṣa* alone, (3) positive-negative (*anvayavyatireki*), where the *hetu* is present in some things other than the *pakṣa* and is not universally present.

In glossing Vātsyāyana's explanations Uddyotakara reconstrues *sāmānyatodṛṣṭa* to include any inference which is noncausal.

Direction (*dik*), such as "east," is not perceptible; however, we appear to point in a certain direction with our finger, so one might think direction is perceptible after all. No, says Uddyotakara: what we point at are the locations of objects we have seen before. E.g., we have seen the sun occupying a place on the horizon and come to call the vicinity of that place the "east."

Question: What is the *sādhya* in the inference of fire from smoke? Is it fire, or the locus of fire, or the existence of fire, or the locus of fire together with fire? None of the first three, says Uddyotakara, since the *sādhya* must be something whose nature is to be inferred, and the nature of fire, or the locus of fire, or existence of fire is already known. Not the fourth view either, since smoke does not reside in the place

where the fire does (but above it), and since we do not perceive the locus of fire but rather the fire. What is the *sādhya* then? Uddyotakara says it is the smoke accompanied by fire.

Inherence is independent (*svatantra*) since it does not reside in another thing. If it did, there would be an infinite regress. Furthermore, if it were dependent on its referent it could not come into existence before its referent did, and thus it could not relate its relatum to its referent. And if it were, by what relation could it be related to its referent? Not by contact, which in turn requires inherence; and surely not by inherence itself, since there is only one inherence. *Objection*: If there is only one inherence we have the absurdity of relata without any relation. *Answer*: No, inherence does not cease to exist; what ceases is the specific cause of our apprehension.

Uddyotakara refutes alternative definitions of inference. (1) Definition: Inference is the awareness of what is invariably concomitant.[14] This is formulated in two slightly different ways, and is rejected on grounds of redundancy and unclearness in grammatical construction. (2) Definition: When inference occurs, the *hetu* is present in *pakṣa* and *sapakṣa*, absent in *vipakṣa*. This is criticized as too inclusive, applying to properties which occur in only a part of the *pakṣa* (as, e.g., "atoms are noneternal, because they smell, like pots," where "smelly" applies to some atoms but not to all.) (3) Definition: Inference is knowledge of a thing arising from the perception of its relationship with another thing.[15] This is said to be subject to the same criticisms as (1) and (2); in addition, it is held to contradict its proponents' own theories.

6. (E57-58; T (1913) 169-71) Uddyotakara, unlike Vātsyāyana, holds that in comparison we perceive the similarity between *gavaya* and cow at the time of the judgment, this perception being aided by what we have been told beforehand about the similarity between these two kinds of animal. *Objection*: Comparison is, then, nothing but a combination of perception and verbal testimony.

Answer: No, the judgment which comparison leads to connects an object with a name, and neither perception nor verbal testimony lead to such a judgment.

7-8. (E58-61; T (1913) 172-82) *Objection*:[16] Since heaven, gods, etc., cannot be perceived, it would be well to define verbal authority in a way which does not involve any person's assertion, but Gautama's definition alludes to a reliable person. *Answer*: Heaven and gods are perceptible, because they are located in certain places, exist for the sake of others, are capable of being spoken of, and are not eternal, and things with these characteristics are percep-

tible. *Objection*: But how about *karma* (here: *apūrva*)? It is not known to be noneternal. *Asnwer*: If *karma* were eternal, there would be no death and no liberation; furthermore, we should have to ask how many eternal *karmas* there are, and this is an awkward question. For if there is only one *karma* shared by everyone, then everyone's good would depend on everyone else's actions. Or if each person has his own eternal *karma*, he could never get more or less of it. Here the opponent holds that one eternal *karma* can appear as diverse through the diversity of that which manifests it, like a face becoming many in a set of mirrors. Uddyotakara's retort is that the face does not become many but only appears to, and so likewise with *karma*. Finally, if each person has many eternal *karmas*, then all actions should be producing their results at every moment.

Objection: The "teaching of a reliable person" either means that the person is truthful or that what he says is. To find out that he is truthful one uses inference, and to find out what is the case one uses perception. Therefore there is no such independent instrument of knowledge as verbal testimony. *Answer*: No, the objector misunderstands the result of verbal testimony. Verbal testimony leads to a judgment that something is known through testimony; and neither inference nor perception lead to that kind of a judgment.

Topic III: The Objects of Knowledge

10. (E64-68; T (1913) 191-205) *Objection*: How can the existence of self be known through inference from desire, etc., since desire, etc. are not perceptible? *Answer*: The inference is from the fact that memory has the same content as desire, etc., to the existence of a common locus for memory, desire, etc. *Objector*: No, the idea that memory has the same content as desire is due to there being a series of judgments one following the next and fused together in our consciousness; the "self" is thus a series of judgments and not the common locus of memory, desire, etc. In fact memory is merely a causal sequence of judgments thus fused; when such a causal sequence is absent, there is no memory. *Answer*: But we were talking, not about memory in general, but about a particular memory which has as its content an object which is later desired. Such a memory is not possible on your account. *Objector*: Not at all; such a memory is possible, but it involves no agent as distinct from the series of judgments called "the memory." *Answer*: Memory is hardly possible on your theory, which holds that no judgments last more than a moment. *Objector*: Each judgment in a memory-series contains the

seed of the next, so that the next judgment is conditioned by that seed. *Answer*: This is inconsistent with your own theory that each member of the series arises and disappears without changing its character.

11. (E69-71; T (1913) 211-14) How can an atom change color? E.g., in baking a pot one atom undergoes several changes of color, apparently from the same cause, namely heat. The answer is that heat is not the only cause. In addition, there is the specific shade that the atom had just prior to the change. Generally, no effect has only one cause, but always a collection of causal conditions. *Objection*: Well, what about a motion, which produces both contact and disjunction at once, according to Gautama's account ? *Answer*: But motion does not produce contact and disjunction all by itself; there are other causal factors, and the differences among them explain the differences in the effects.

14. (E71-78; T (1913) 216-36) Uddyotakara proposes to read this *sūtra* quite differently from Vātsyāyana. According to Uddyotakara, Vātsyāyana's reading would imply that earth and the other substances are not perceptible, since the *sūtra* identifies smell, etc., as the objects of the sense organs (and not substances). Uddyotakara therefore reconstrues the passage so that the objects of the external sense organs are earth, fire, and water and their properties, i.e., everything which inheres in these three as well as inherence itself, which is also perceptible. His purpose seems mainly to be to avoid the (Buddhist) view that only qualities are perceptible and not substances. He argues that substances are perceptible because we are able to grasp one thing by two or more senses. The opponent sets to work to construe substances as merely aggregates of qualities; he says that we say we see a jar when in fact we see certain properties appearing in a certain shape or configuration (*ākāra*). Uddyotakara replies that the notion of "configuration" arises from the substance which constitutes the thing which has a shape, in this case, a jar—therefore the opponent has admitted the existence of a jar! Or perhaps the term "configuration" is just the opponent's peculiar word for that which the Naiyāyika calls "substance!" The opponent, however, points out that on his view a judgment concerning a jar is a false judgment, whereas a judgment about a configuration of qualities is a true judgment; thus a jar is different from a configuration of qualities. Uddyotakara submits that a false judgment about something can be admitted only if there is possibility of true judgments about it; but according to the opponent, there can be no true judg-

ments about jars. Therefore there cannot be any false judgments about jars either, on the opponent's assumptions.

The opponent tries again to prove that substances are reducible to qualities, by arguing that when we cannot have a judgment of one thing without also having it about another, these two things are identical. E.g., soup is nothing but meat and water, and a row is nothing but things lined up. Uddyotakara replies with several arguments. The opponent's view contradicts his presuppositions; it cannot be consistently formulated; it involves identifying a plurality with a unity; the soup and the row are different from their constituents.

Of special interest is the handling of the example of the row of things, which calls forth an analysis of number. Such collective words as "row," says Uddyotakara, refer to the number of a set of things, and number has a distinct categorical status from the numbered things. The opponent tries to deny the independent status of numbers, but it is pointed out that the basis of the notions of one and many, both which notions apply to substances like jars, must lie outside the realm of substance.

Finally, the opponent's argument (two paragraphs back), that the impossibility of knowing *x* without knowing *y* is sufficient to show that there is only one thing known, is not valid, since there are other reasons (besides the nonexistence of *x*) why we see them always together. There are 2 sources of nonperception : (1) when the thing does not exist, like a hare's horn; (2) when it is not available for perception, like the roots of a tree underground.

22. (E84-87; T (1913) 350-58) *Objection*: The scriptures say that there is eternal pleasure for the liberated self, but Naiyāyikas deny it. *Answer*: What the scripture really means is that there is final cessation of pain. We frequently talk that way. I say "I am well and happy" when I have recovered from a major illness but still have minor aches and pains. And furthermore, if one aims for release under the impression that he is going to gain pleasure he will never obtain release at all, since such an attitude involves attachment. *Objection*: But so is aversion to pain an attitude of attachment. *Answer* : True. The seeker's proper attitude in seeking release is one of indifference.

Some say that it is the internal organ that is released, but their view is that everything lasts for only one moment, so that either liberation will come too easily or else not at all.

Topic IV : The Preliminaries of Argument

23. (E87-101; T (1914) 56-96) Uddyotakara interprets Gau-

tama's obscure *sūtra* to say that there are 3 *conditions* of doubt. Doubt arises when (1) we fail to know the differentia of a thing, but (2) we do apprehend a character shared by that thing and other things, and (3) we have no certain perceptual knowledge of the nature of the thing, either through perception or through failure to perceive. All these conditions must be satisfied together for doubt to arise. Uddyotakara discusses at length the interpretation of the key words in the *sūtra*. He explicitly rejects Vātsyāyana's thesis that there are 5 kinds of doubt. He takes issue with Vātsyāyana's last two kinds of doubt in particular. Vātsyāyana has it that whenever we perceive or fail to perceive a thing, some of its characteristics are clear and others unclear. Uddyotakara says that if this were true doubt could never be removed. Since this partial lack of clarity applies to any judgment, it would also apply to whatever judgment is supposed to clear up doubt, so that judgment would in turn be doubtful, etc.

24. (E101-02; T (1914) 153-55) Why is purpose mentioned here? Because purposeless doubt never leads to inquiry.

25. (E102-03; T (1914) 156-57) Gautama's "definiton" of the example is meant only as an illustration. It cannot be a proper definition, since ordinary men have no ideas whatsoever about things like *ākāśa*, etc., and so cannot share ideas on these topics with experts. The proper definition of example is merely that it is an object concerning which beliefs are shared.

Topic V : Tenets

26-31. (E103-07; T (1914) 159-69) There is some discussion about the authenticity of one or the other of *sūtras* 26 and 27. Uddyotakara reads the fourth kind of tenet as "doctrines taken for granted without being mentioned in the *sūtras*"—e.g., "the internal organ is a sense organ," which is nowhere explicitly stated in the *sūtras*, though it is commonly accepted Nyāya doctrine. With this interpretation Uddyotakara goes on apparently to reject Vātsyāyana's view that the fourth kind of tenet is an indulgence.[17]

The skeptic who holds that there is no doctrine common to all philosophies is refuted by being asked to prove his opinion by reasoning. He discovers he must assume that "reasoning constitutes proof" is accepted by all philosophies—the alternative being silence. The notion that tenets are no different from someone's opinions is refuted. One's own thesis is something to be investigated, while a tenet is something accepted without investigation.

Topic VI : The Nature of an Argument

33. (E108-18; T (1914)174-97) As we have seen, Uddyotakara holds the *sādhya* to be an object accompanied by the characteristic which is to be inferred (cf. his commentary on I.1.5). Objectors are made to criticize this. Under the criticism Uddyotakara specifies his contention more precisely. The *sādhya* is the mutual relation of necessary connection (*niyamaka*) which holds between the qualified object *sound* and the qualifier *noneternality* (in the inference "sound is noneternal," etc.) *Noneternality* is already known as a characteristic of jars, etc., but it has to be proved to qualify *sound*.

A lengthy discussion is devoted to the following argument. Gautama's definition of the hypothesis is that it identifies the *sādhya*, i.e., the "thing which remains to be proved." Now this definition overextends, since it would include as a proper hypothesis the identification of any unknown property, since such an unknown property would remain to be proved. *Answer*: by *sādhya* we mean something which not only remains to be proved but is *claimed* by someone as part of his tenets. *Objector*: Why, then, don't you say "tenet" instead of *sādhya* in the definition ? *Answer*: Because all tenets are not in question. The first type of tenet, the tenet common to all philosophies, cannot be included as *sādhya*. Furthermore, the overextension you charge us with is precluded by the understood additional requirement that the *sādhya* must be something one desires to know.

Uddyotakara offers some 7 answers to this objection, going on to indicate why he spends so much time on the matter. He cites alternative definitions of the hypothesis, such as, e.g., "the hypothesis is that which is desired to be proved," and shows in a number of instances that what the opponent thinks to be putative hypotheses excluded by this definition are in fact excluded by more fundamental considerations anyhow. In addition, he remarks, the Buddhist is evidently not defining the hypothesis but rather the *statement* expressing the hypothesis. The hypothesis, according to Uddyotakara, is the *pakṣa* accompanied by the *sādhya*; there is no possibility of any question of self-contradiction or like fault being found with it, since it is not an expression. *Objector*: You argue that faults such as self-contradiction do not apply to objects, since the character of objects remains the same no matter how one speaks about them. But the same can be said of assertions : the character of an assertion remains the same no matter how one speaks about it. Therefore, assertions are not self-contradictory, etc., either: *Answer*: Quite so ! In fact these faults are primarily ascribable to people. Being self-contradictory is

primarily a characteristic of the speaker of an utterance, and only secondarily a characteristic of the utterance.

35. (E122-34; T (1914) 209-38) This *sūtra* speaks of the dissimilarity between the *hetu* and the *vipakṣa*, which Vātsyāyana construes as the negative example. Uddyotakara objects to this interpretation, however, and finds that this passage indicates that there are 2 kinds of *hetu*—affirmative (*vīta*) and negative (*avīta*). The function of the latter kind of *hetu* is limited to refuting others—e.g., "this body has a self, since if it did not it would not breathe."

An alternative definition of *hetu* is proposed: "the *hetu* is that which is always absent from the *vipakṣa*, but not always absent from the *sapakṣa*." This is criticized, first as allowing as valid inference something like "atoms are eternal because they smell" (where the *hetu* satisfies the definition but is present in only part of the *pakṣa*). When the opponent adds a qualification ("the *hetu* must be present in all of the *pakṣa*") to meet this, the resulting definition is criticized as redundant.

Another alternative definition : "*hetu* is that which is present in either part or all of the *sapakṣa* and is absent from all of the *vipakṣa*." Again this fails to exclude an inference where the *hetu* is present in only part of the *pakṣa*. And again, if this additional qualification is made, the result is unnecessarily complicated.

Again: "*Hetu* is that which possesses a property which is never absent from the *sapakṣa*.", *Criticism*: This does not assert that there is any property present in the *sapakṣa*. But even if we grant that the definition implies or presupposes the presence of a property in the *sapakṣa*, still once again there is no guarantee that the *hetu* is present in all of the *pakṣa*. In an example, offered by proponents of the definition, "sound is noneternal, because it is produced by effort," the *hetu* is not present in the *pakṣa*; sounds are not produced by effort but rather by contacts and disjunctions. In fact, "by effort" here is superfluous—the mere fact that sound is a product is sufficient to show its noneternality.

Someone (a Buddhist) has said that there are 3 kinds of things not produced by effort : eternal things, like *ākāśa* ; noneternal things, like lightning; and nonexistent things, like the sky-flower. *Criticism*: Nonexistent things like the sky-flower cannot be assigned properties at all. Furthermore, *ākāśa* cannot be described as "not produced by effort," since it is not produced at all!

Topic VII : Nature of the Subsidiary Processes in Proving an Argument

40. (E139-42; T (1914) 338-48) How does *tarka* differ from inference or ascertainment ? *Answer*: In both the result is a detailed

understanding of something, while the result of *tarka* is merely to indicate, so to speak, that such and such "ought to be" the conclusion, but does not of itself prove that conclusion in the way inference or ascertainment does.

41. (E143-45; T (1914) 351-59) Why isn't ascertainment a kind of inference? Because inference requires the identification of and relating together of a *hetu* and a *sādhya*, but ascertainment does not. Because inference is an instrument of knowledge while ascertainment is the result of the use of instruments of knowledge.

BOOK ONE : PORTION TWO

Topic VIII. Controversy

1. (E146-60; T (1915) 41-44) After defending Gautama's definition of discussion, Uddyotakara considers alternatives. One[18] is to the effect that discussion is conversing with an eye to establish one's own view and demolish another's. Various interpretations of "one's own" and "another's" are considered and rejected. Uddyotakara has it that theses cannot be properly described as "belonging to" people the way land, for example, can. To say that one's own view is the view one intends to prove renders the definition trivial. And since "another's" view is no less a view after it has been criticized, it is wrong to speak of demolishing it. Furthermore, what is it to "establish" a view? Uddyotakara provides 2 possible meanings —establishing is (1) producing or (2) manifesting a thesis— and finds fault with both. To establish a view is to convince the umpire of the truth of the view — but this implies that the view has already been produced or manifested.[19]

2. (E160-62; T (1915) 45-51) Where Vātsyāyana says that quibbling, etc., can be used directly to condemn and indirectly to support, Uddyotakara flatly denies that these tricks can be used either to condemn or support. Their function is to help win victory in debate through foul means. Any debate where these means are used is not a discussion but sophistry or cavil.

Topic IX : Fallacies of the Hetu

4. (E163-69; T 7 (1915) 114-29) Uddyotakara calculates the number of kinds of *hetu*—right and wrong. On one reckoning their number cannot be counted; on another, more restricted, the number is 176. There are 16 cases where the *sādhya* (=*s*) pervades the *hetu* (=*h*): (1) *h* occurs in both *sapakṣa* (=*sp*) and in *vipakṣa* (=*vp*); (2) *h* occurs in all *sp* and part of *vp*; (3) *h* occurs in *sp*,

absent from *vp*; (4) *h* occurs in *vp*, absent from *sp*; (5) *h* absent from *sp*, occurs in part of *vp*; (6) *h* absent from both *sp* and *vp*; (7) *h* occurs in all of *vp*, part of *sp*; (8) *h* occurs in part of *sp*, part of *vp*; (9) *h* occurs in part of *sp* and all of *vp*; (10) *h* occurs in *sp* but there is no *vp*; (11) *h* occurs in part of *sp* but there is no *vp*; (12) *h* absent from *sp*, there is no *vp*; (13) *h* occurs in *vp* but there is no *sp*; (14) *h* occurs in part of *vp* but there is no *sp*; (15) *h* absent from *vp* and there is no *sp*; (16) there is no *sp* or *vp*. A similar list of 16 arises where *h* pervades only a part of *s*, and another 16 where *h* is absent from *s*. By adding qualifications to the *h* according as *h* is unknown, inapt, or doubtful he arrives at a number of kinds much greater than 176.[20]

6. (172-73; T (1915) 137-41) Uddyotakara offers an alternative account of the fallacy called *viruddha*. It occurs, he says, when the reason contradicts the hypothesis. As example, "sound is eternal, because it is a product." This account admittedly overlaps the third way of losing an argument.

8. (E174-75; T (1915) 147-49) There are 3 kinds of *sādhyasama* or *asiddha* fallacy : (1) where the *h* is as much in need of proof as the *s*;[21] (2) where the locus of *h* is not known (*āśrayāsiddha*); (3) where *h* can be explained in a way other than that which would make it a proof (*anyathāsiddha*).

BOOK TWO : PORTION ONE

Topic XII : Doubt

1. (E182; T (1915) 302-06) In addition to the 4 interpretations of *sūtra* 1 given by Vātsyāyana, Uddyotakara gives 4 more: (1) Doubt cannot arise concerning things that are perceived, since they are clearly known, and it cannot arise about things that are not perceived since they are not known at all. (2) Frequently when we cognize a common property we are not in doubt—e.g., when we realize that sound has the property of being a product, in common with lots of other things, no doubt arises. (3) Doubt occurs sometimes when there is no knowledge of common properties, e.g., when we find contradictory properties apparently resident in one thing. (4) A property which resides in only one thing cannot be called a "common" property, but the tallness of a post resides in the post only, so it cannot be common to a man and a post, thereby causing doubt.

6. (E183-85; T (1915) 315-20) Answers to the above objections. (1) When things are perceived, but unclearly, there is doubt. (2) A "common" property is one which resides in the thing presented and in things other than those which are homogeneous with that thing.

Now *being-a-product* is present in sound and also in things which are homogeneous with sound. Therefore no doubt arises. (3) We do not claim that doubt arises *only* when common properties are known. E.g., we admit that doubt arises from knowing several properties of several objects. On the other hand we do *not* admit that two contradictory properties can reside in the same thing. (4) This is met above, in the answer to (2).

Topic XIII : Instruments of Knowledge

11. (E186-89;T(1915)329-35) Does the opponent mean to deny the existence of instruments of knowledge, or rather to deny that what is called "perception," for example, is a valid instrument of knowledge? The former thesis is impossible to substantiate for the reason that Gautama states—that to prove nonexistence requires an instrument of proof as much as any other thesis. As to the latter: Suppose you say that, though perception and the others are not valid instruments, there are other instruments which are valid. Then you will be faced with exactly the same difficulties about time as you urge against our account. Or if you say that perception, etc., exist but lack the character of being instruments of knowledge, then we can still ask you about the character of the things you assert lack this character —and the same difficulties will again arise for you!

12. (E189-91; T (1915) 336-40) You say "perception does not exist," and want to construe this as denying the existence of perception. But such a sentence cannot assert the absolute absence (*atyantābhāva*) but rather denies the connection of its subject with something else —just as "the jar does not exist" must mean that it does not exist here, or now, or perhaps that it is not efficient—so likewise this sentence of yours can only deny the existence of the instruments of knowledge at a time or at a place or their efficiency; it cannot deny the existence of the instruments themselves. Furthermore, to whom are you addressing your sentence? And who is uttering it? The utterer is one who knows it, and the man addressed is one who does not, you may say. But how can the utterer know it if there are no instruments of knowledge—and if he does not know it he is in the same boat as the person addressed; and in that case how can you tell them apart?

16. (E193-98; T (1915) 351-61) In order to broach another debate with a Buddhist, Uddyotakara takes advantage of this discussion of the character of what is denoted by "tree" in the nominative case. The tree, when referred to in this manner, is assumed to be independent, not to need another agent for its behaving in the manner indicated by the verb. Or it may mean continuity of existence—

"the tree stands" means it continues to exist in a place at more than one point of time, and this is known through its being recognized from one moment to another. *Objection*: There is no recognition of the sort you mean. Such "recognition" is adequately explained by the analogy of the wheel of fire or of the lamp. In such cases there is only apparent continuity and recognition, but in fact everything is momentary. *Answer*: But you have no proof that everything is momentary. *Objector*: Neither have you any proof that anything is continuous. *Answer*: Oh yes we do. We infer it from the fact that in causation the locus of the effect must be continuous with the locus of the cause. *Objector*: And how do you know that ? There is no example of this which both of us will accept! *Answer*: Then you also admit that there is no valid example for your own thesis, that is, no example that we will both accept. And your view is contradictory, since you talk in a manner which implies that things have loci —e.g., you say that a substance is nothing but a collection of elements and their qualities, but we ask "qualities of what ?," and what does "of" signify here except residence in a locus?

Topic XIV : Perception

22. (E203-04 ; T (1916) 30-32) The question is raised: Why are not place, time and *ākāśa* causes of perception, since they are always present when perception is ? *Answer*: Because we fail to find that these conditions are successful in producing perceptions. The case is similar to that of the hot touch of fire, which is not credited with being the cause of the visual perception of the fire, whereas the color of the fire is credited with being the cause, even though the hot touch and the color are both equally present whenever the effect occurs.

Topic XV : The Whole

34. (33 in E and T) (E216-31; T (1916) 148-96) Uddyotakara presents some 14 arguments on behalf of the opponent, all intended to show that the whole is nothing but the aggregate of its parts. (1) *Opponent*: One thing cannot be a part of a different thing; therefore we conclude that whole and parts are the same. *Answer*: This is self-defeating. If there are no parts, different from the whole, then we should not talk about "parts"— but we do. *Opponent*: No. What I mean is that what we call "parts" and "whole" are the same elements arranged in a different manner. *Answer*: That is, you mean that where before certain things were not in contact, now they are; but that means a new and distinct element, contact, has been produced, so that the whole is distinct from the parts. *Opponent* : Contact is

not a distinct entity. *Answer*: Then how do you explain the fact that water one place and a seed in another do not produce a plant? There must be contact between them for them to produce. *Opponent*: Production does not require contact. Consider the production of a sound by another sound, of magnetic attraction, of contact by a motion. *Answer*: True, production does not require contact, but my point is that production always involves *some* additional entity coming into being that was not there before. In each of your examples there must be proximity between the elements involved: the parts of space characterized by the sounds must be contiguous, the magnet must be close to the filings, the things that move in producing contact must be close together. And proximity, like contact, is a distinct entity.

(2-3) *Opponent*: The whole is identical with the parts, since they are parts *of it*! *Answer*: For clarity, we should distinguish "part" in the sense we are discussing from another sense of "part" in which one refers to the places occupied by an object. "Part" (*avayava*) in our sense refers to a causal factor which is distinct from the whole it helps produce. The sum of the parts in the other sense (*pradeśa*), the totality of the places occupied by an object, may be admitted to be identical with the place where the object resides.

(4-11) A number of arguments are rejected on the ground that the opponent identifies whole and part and yet argues on the assumption that they are different, thus contradicting himself.

(12) *Opponent*: If the whole were different from the parts, it would not be perceptible, since it inheres in imperceptible atoms. *Answer*: If it is being argued that for anything to be perceptible all its parts must be perceived, no object is ever perceived—for we never see the insides and backs of objects. That atoms are not perceptible is defended. They are in contact with the sense organs but are not perceived because they are too small. An opponent tries to identify the atom with the minimal perceptibilium or triad, but this is rejected on the ground that the minimal perceptibilium can be broken into parts.

(13) *Opponent*: That things are different from each other is shown sometimes by their being contact between them, sometimes by their being separated from each other. Now the parts and the whole show neither relation. Therefore they are not different from each other. *Answer*: But according to you, the three *guṇas* are different from each other and yet there is no contact or separateness relating them; likewise *prakṛti* and *puruṣa*.

(14) *Opponent*: The whole is identical with the parts, because they weigh the same, or more generally, because the presence of the whole in addition to the parts adds nothing to the qualities of the resulting object. *Answer*: The presence of the whole does add something but it is so tiny as to be undetected by, e.g., the balance in the case of weight. There is a discussion about what makes an object exhibit weight. According to Uddyotakara it is the contact between the parts which causes the weight of the whole. The opponent thinks it is the weight of the parts together with the inherence of the whole in the parts. But it is argued that if this were true, then everything which inheres in the parts should have weight, and thus weight, which inheres in the parts, would have weight, which is absurd.

Topic XIX : Verbal Testimony

50-51. (49-50 in E and T) (E259-60; T (1916) 265-71) Uddyotakara adds more arguments on the opponent's behalf to show that verbal testimony is merely inference, and refutes each one. (1) *Opponent*: Testimony is inference, because it depends on memory. *Answer*: But doubt, *tarka* and comparison also involve memory, so this is an insufficient reason. (2) *Opponent*: Testimony is inference because it involves past, present, and future. *Answer*: So do the other instruments of knowledge just mentioned. (3) *Opponent*: Testimony is inference because it involves negative and positive concomitance. *Answer*: So does perception.

Topic XX : Reliability of Scripture

69. (68 in T) (E271-73; T (1916) 355-63) Uddyotakara is more positive about the noneternality of scripture (1) because the scriptural utterances are classified according to the purposes they serve, (2) because they consist of letters, (3) because they are received by the ear, (4) because they consist of words. For all these reasons the sentences in scripture are just like ordinary sentences and so noneternal *Opponent*: If scriptural sentences were not eternal no judgment could arise from hearing a sentence, since it would always be like hearing a word for the first time, and no judgment arises from that. *Answer*: We get a judgment from words heard for the first time, just as we get a judgment by means of a lamp used for the first time. *Opponent*: But the lamp is connected with its object through its lighting it up. *Answer*: So is the word connected with its object by denoting it.

BOOK TWO : PORTION TWO

Topic XXII : Sound Is Noneternal

13. (E280-84; T (1917) 31-58) What does "noneternal" actually mean? Uddyotakara mentions 4 wrong definitions. (1) The noneternal is that of which there is prior absence (*prāgabhāva*) and posterior absence (*dhvaṃsābhāva*). (2) The noneternal is that which has a cause of its own destruction. (3) The noneternal is that which is not perceived when the conditions of its being perceived are present. (4) The noneternal is what is expressed by the abstract term "noneternality." All of these are rejected, some on rather technical grounds. The correct definition is given as : A thing is noneternal if its existence (*sattā*) is circumscribed by beginning and end. Eternality, then, is defined as a thing's existence not circumscribed by beginning or end. In a similar manner, inherence is called "cause" when it is qualified by an effect, and called "effect" as qualified by a cause.

In refuting the Mīmāṃsā opponent who holds that there is only one sound manifested in the one *ākāśa*, Uddyotakara also gets involved in a discussion about the nature of words. What is manifested when a word is uttered ? Is it the sound of one syllable of the word? But one syllable cannot carry the meaning of the whole word. Or is it the sound of a number of letter-sounds together ? But on the Mīmāṃsā view that there is only one sound and one locus for it, when a word is uttered there should be a terrible uproar—all the syllables being heard at once, along with all other sounds that are being manifested at the same time! For this reason we must also reject the view that there are numerous all-pervading sounds.

17. (18 in E (E293-97; T (1917) 63-71) Uddyotakara's view is that sound is a non-locus-pervading (*avyāpyavṛtti*) quality of *ākāśa*. A characteristic is "locus-pervading" if it is perceived whenever and wherever its locus is perceived. E.g., existence is locus-pervading, while contact is not.

Are the contacts between *ākāśa* and objects eternal or noneternal? Uddyotakara's view is that contacts between *ākāśa* and atoms are brought about by the motion of the atoms, while contacts between *ākāśa* and gross objects are produced by the contact between *ākāśa* and the constituent atoms of the gross objects.

31. (32 in E) (E301-03; T (1917) 87-91) In connection with the opponent's third argument ("because of repetition") the opponent argues that because we recognize sounds they must be eternal, for to recognize something is to perceive *it* again. *Answer* : No, recognition arises also when something is perceived to be similar to something

else of that kind. *Opponent*: Yes, there are such cases, but they can be distinguished from recognition proper by the fact that, when we "recognize" something which is only similar to and not the same as the original, we abandon the report of recognition as soon as we perceive the points of difference between them. *Answer*: But there are also cases where we abandon our report of recognition even when points of difference are not perceived. Therefore this abandonment cannot be used as a mark.

Topic XXIV : The Meaning of Words

64. (65 in E; 61 in T) (E314-19; T (1917) 144-53) The *sūtra* presents the opponent's position in favor of the universal property being the meaning of a word. Uddyotakara develops the opponent's argument at length, starting with the point that individuality and presence of the *ākṛti* may occur without the universal—as in a clay cow, which lacks cowhood—and that in such cases we do not want the words meaning to extend to such objects, since the result would be absurdity : we say "milk the cow," but a clay cow cannot be milked, etc

He then moves on to defend the very notion of universals itself. *Opponent*: There are no universals, since a universal is supposed to link several individuals, but when we look in the space between the individuals we do not find any universal. *Answer*: Of course we do not find cowhood, for example, in *ākāśa* ; we find *ākāśa*ness in *ākāśa*. But more important, without the category of universals we could not have the notion of kinds of things. *Opponent*: We can get these notions by perceiving the similarities in the *ākṛtis* of things. *Answer*: No, for each *ākṛti* is a particular characteristic of the object it characterizes—or if you think it is a common characteristic you have admitted universals under another name.

Opponent: Now look. We have a notion of "universal property" —and you and I are discussing something we recognize by that description. What is the basis of this notion ? Is it some second-order property "universalness" ? But the *Vaiśeṣikasūtras* deny that there is any such property.[22] Thus there are notions of kinds which do not require universals as their basis—and generalizing we can conclude therefore that no such notion requires a universal as its basis. *Answer*: But though there is no second-order property universalness, it does not follow that the notion of universal property has no basis. Its basis is the coming together of several things. Just so the notion of "universal property" has as its basis the coming together of several universal properties. I do not say that all classifica-

tion into kinds involves universals, only that such classification involves something other than individuals and *ākṛtis* by themselves.

Opponent: Does the universal reside altogether, or only partially, in the individual? If it is entirely within the individual, then it is peculiar to that individual and cannot link with other individuals. And if it is only partially within the individual, i.e., if it has parts, then either a part is unique to its individual, in which case again it cannot link that individual with others, or if it is not unique to the individual, it must have parts in turn. So the universal cannot do the job it is intended to. *Answer*: Your question cannot arise, since a universal is neither a whole nor a sum of parts. It is a mistake to talk about "all" or "part" of a universal.

Opponent: How *does* a universal relate to its individual loci, then? *Answer*: By inherence. *Opponent*: But what does (e.g.) cowness inhere in? It must be either in cows or non-cows. But if it inheres in cows, then a cow is a cow before the universal comes to inhere in it; and of course it does not inhere in non-cows. *Answer*: Nonsense! The individual is not a cow until the universal inheres in it. Before that it is neither cow nor non-cow, so the dilemma does not arise.

66. (67 in E; 63 in T) (E319-31 ; T (1917) 155-80) A Buddhist defender of the *apoha* theory says: Take the word "existent" (*sat*). It does not denote a universal, as "cowness" does, for "cowness" applies to cows, while "existent" also applies to cows. And it does not denote individuals, for one word cannot denote innumerable different things. And it cannot denote an individual as invested with a quality, for "existent" primarily denotes existence and only secondarily things which are existent. Therefore the denotation of a word is to be explained as the negation of other words' proper application. *Answer*: You confuse *sat*, "existent," with *sattā*, "existence." "Existent," on our view, denotes various individuals as qualified by existence. Therefore it does not denote innumerable different things, but rather several things which share a property.

As for the (Buddhist) view that the meaning of a word is the negation of what is denoted by other words, this will not do. For one thing, how can we understand what this means unless we grant that some words have a positive denotation? Secondly, what is the status, e.g., of what is not non-cow, which according to the Buddhist is the *denotatum* of "cow"? Is it positive or negative? If the former, there is no objection; it is just another name for cow. The latter is impossible, for when we talk of a cow we are not speaking of an absence. Thirdly, what about a word like "all"—what does it denote? You cannot say "not non-all," for that makes no sense. Nor can

you say that "non-all" means *one* or *some*, since then you would have the word "all" excluding *some* or a given *one* thing, and thus you would not be using "all" in its usual sense. Fourthly, what is excluded by asserting "cow"—is the thing excluded *cow* or *non-cow*? It cannot be *cow*, obviously. If it is non-cow, who ever thought that a cow was a non-cow? And how could we think of "non-cow" without first thinking of "cow"? Fifthly, is this exclusion of non-cow, which you claim to be the meaning of "cow", the same as or different from cow? If it is the same, then nothing is gained. If it is different, then does *non-non-cow* reside in *cow* or not? If it resides in *cow*, then "cow" denotes a quality of a cow and not a cow. If it does not reside in it, what has it got to do with *cow*? Sixth, is there one *apoha* for each cow, or one for all? If there is one for all, then your *apoha* is just another name for the universal *cowness*, which we happily admit. If there is one for each, then there are as many *apohas* as cows, and nothing has been gained. Seventh, is *apoha* itself denotable or not? If it is denoted by *apoha*, then your doctrine is undermined. But if it is not, then your doctrine is unformulable!

67. (68 in E, 64 in T) (E332; T (1917) 181-83) There is a difference of opinion over the interpretation of this *sūtra* between Vātsyāyana and Uddyotakara. Vātsyāyana's interpretation of the individual is that it must be a material substance. Uddyotakara thinks that an individual is any instance of a category which is neither an *ākṛti* nor a universal. Thus qualities are individuals, as are individuators, motions, etc.

BOOK THREE : PORTION ONE

Topic XXV : The Self Is Not the Sense Organs

Introductory Section. (E335-47; T (1917) 306-30) Though it is impossible that anyone should put forward proofs for the nonexistence of selves, some nevertheless try! *E.g.*, an *objector* says: There is no self, because no such thing is produced, like the hare's horn. *Answer*: (1) When one says "*x* is not" he must mean "*x* is not here." One cannot wholly deny the existence of something which is nameable. Therefore it is impossible to deny the existence of the self absolutely, since it has been referred to. *Objector*: Then where does the self exist? *Answer*: Nowhere in particular, just as it occurs at no time in particular but is eternal. (2) *Objector*: But there are words, like "void" (*śūnya*) and "darkness," which have no denotation, and our claim is that "self" is such a word. *Answer*: No, there are no such words. *Śūnya* means "fit for dogs," and denotes any substance which

is fit for dogs. As for "darkness," it refers to things which are not apprehended due to absence of light. (3) The Buddhist's denial of the self is self-contradictory. (Some Buddhist passages are analyzed.) (4) The nonproduction of self is no reason for the nonexistence of it. There are lots of things which exist but are not products. (5) As for the example of the hare's horn, it is not impossible that some time a hare will have a horn. Someone might graft a horn onto a hare, say.

Objector: No self exists, since no such thing is experienced. *Answer*: Many of the above objections hold against this too. But anyway, the self is experienced; it is perceived, in fact. We make judgments such as "I am fair," and the "I" here is a perceived object. *Opponent*: Yes, but the perceived object is the body. *Answer*: Whose body? My body! And this "my" shows that the body has an owner, a self.

1. (E347-49; T (1917) 331-35) *Objection*: You say that because we have both touch and vision of the same object there must be a self distinct from the senses. But I say that we never perceive objects, only qualities, so your argument fails. *Answer*: No. We sometimes see objects without their qualities, e.g., when one puts a piece of glass over a blue surface he does not see the color of the piece of glass, since we see the blue color passed through it, but we do see the piece of glass. Or again, when cranes fly over at night we perceive the birds even though we cannot see their color.

4. (E350-54; T (1917) 345-54). *Objector*: Your argument presupposes that what arises at each moment in the series is completely different from its predecessors. However, it is rather like the seed and the sprout—though they are different, still a sprout can only come from a seed and vice-versa, so that the seed is "responsible" for the sprout. Likewise, if *A* the predecessor of *B* kills a man, *B* is responsible since he is the specific effect of *A*. *Answer*: No, you misanalyze the seed and sprout example. There are common constituents between the seed and the sprout, so that it cannot be used as an example for the series of items entirely different from each other. *Opponent*: All right, but those constituents are atoms, and atoms have no differentiating characteristics— the atomic constituents of a seed are *qua* atoms indistinguishable from those of the sprout. Therefore the causative character of seed with respect to sprout must be otherwise explained than by their common constituents. *Answer*: No, the common constituents are not the atoms only, but certain middle-sized constituents such as swelling-seed, growing-leaves, etc. *Objection*: Then how did the atoms ever start producing things? *Answer*: This is due to *adṛṣṭa*— through it God combines the atoms.

Uddyotakara also argues that on the Buddhist view release comes

without effort at every moment and thus the instructions for spiritual improvement given by the Buddha are pointless.

7-11. (E359-61; T (1918) 56, 59-63) Uddyotakara takes *sūtra* 7 (the "third reason" in the summary of the *Nyāyasūtras*, cf. p. 229) as an unsound argument, and moves on to *defend* the view that there is only one visual organ. If there were two visual organs, he points out, there would be 6 external sense organs and not 5 as Nyāya-Vaiśeṣika holds. *Objection* : Then how do you explain the fact that we have two eyes? *Answer* : The visual organ is not the eye but the substance that operates through the two eyes.

Topic XXVIII : The Sense Organs Are Elemental

33. (31 in E and T) (E373-76; T (1918) 111-16) The lamp, which grasps both large and small objects, is elemental; so likewise is the visual organ. If an objector denies that the lamp is a relevant example, he is asked what *is* a relevant example. If he can offer none, his case is defective. The opponent tries some alternative examples. It is like a judgment, he says, which is not elemental but grasps large and small things. *Answer*: Judgments do not grasp things, they just *are* the grasping of things. *Opponent*: All right then, the internal organ, or the self, are nonelemental graspers of large and small things. *Answer*: The question of elementality with respect to these things does not arise. They do not have parts and so it is silly to ask whether they are made up of elemental or nonelemental substances. *Opponent*: You misunderstand. When we say that the eye is nonelemental, we *mean* that it is such that the question of its make-up does not arise. Indeed, sense organs are all-pervasive. *Answer*: If so, why don't we see everything everywhere? Walls, etc., should not stop an all-pervading organ! *Opponent*: What the wall stops is the *operation* of the organ. *Answer*: What you call the "operation" is what I call the "sense organ," and I challenge you to prove that there is anything "behind" the "operation" as you call it.

BOOK THREE : PORTION TWO

Topic XXXII : Relation of Destruction and Production

14. (E411-19; T (1918) 324-44) According to Vātsyāyana the case of the piece of glass is different from that of milk and curds. In the latter there are new things produced and old things destroyed every moment, while in a piece of glass this is not so. *Objection*: It is so in the case of a piece of glass too, since sometimes it feels cool, other times warm, etc. *Answer*: This is due to other causes, namely,

that when it is cool particles of water have entered into it, and when it is hot particles of fire have entered. If you do not admit this, you will have to admit that the same thing is both hot and cold, etc., without any change in the thing—and that is absurd.

Opponent: The destruction of a thing is not due to anything else. A thing is born and destroyed of itself without any assistance. *Answer*: This will not do. For according to you, there are 2 kinds of things without causes: eternal things and nonexistent things. But *destruction* can be neither an eternal thing nor a nonexistent one. If it were eternal, then nothing could be produced; and if it were nonexistent, then nothing could be destroyed. *Opponent*: Destruction is causeless, since it is itself indestructible. We know this from the fact that when something is destroyed it cannot be produced again. *Answer*: The production of a thing is not the same as the destruction of its destruction. Furthermore destruction, though it can be produced, cannot be destroyed, since it is a negative thing and negative things are not properly described as "destroyed."

There is a discussion about exactly what the thesis of "momentariness" (*kṣaṇikavāda*) is. If it means that things last for only a moment —that is, for the smallest conceivable measure of time—Uddyotakara contends that this controverts the Buddha's statement that time is merely a fiction.

Topic XXXIII : The Locus of Judgments Is the Self

26. (E424-25; T (1918) 363-64) Gautama says "the internal organ occurs within the body." What does this mean? It cannot mean that the internal organ inheres in the body, nor that it functions only inside the body (for it goes out along with the visual organ to grasp objects). *Answer*: Right. What is meant is that the internal organ never functions except when there is a body for it to function through.

Topic XXXV : The Body Is Produced by One's Karma

66. (E441 ; T (1919) 30-31) Vātsyāyana explains why all the selves do not have a given body in common. He explains it by appealing to the *karma* which brings about that body. But, asks an objector, what causes that *karma* to be connected to that particular body and not another? *Answer*: The cause is the connection between the internal organ of that particular body and the self. *Objection*: But what is the cause of the internal organ's connection to that particular self? *Answer*: The *karma* of that particular self. *Objection*: But

at the beginning of creation the selves have no *karma*. *Answer*: There is no beginning of creation.

68. (E442-45; T (1919) 37-42) Supposing an opponent identifies *adṛṣṭa* with ignorance (*ajñāna*), and attributes the connection between self and body to that. Then the reply should be : What do you mean by "ignorance"? Do you mean absence of knowledge, or wrong knowledge? If absence of knowledge is meant, then freedom is impossible, for both before and after the manifestation of the universe there will be absence of knowledge and therefore ignorance in your view. If wrong knowledge is what is meant, then the bondage of the self to the body could never begin, since "wrong knowledge" requires its objects already to be in existence. And if you say that objects are forever in existence, then again you admit the impossibility of release.

BOOK FOUR : PORTION ONE

Topic XXXVI : Defects

3. (E448-50; T (1919) 54-57) Several varieties of each of the 3 kinds of defects are explained: e.g., affection includes love, selfishness, longing, thirst (for rebirth), and greed. Aversion includes anger, jealousy, envy, malice, and resentment. Confusion includes error, suspicion, pride, and negligence. Uddyotakara claims that his definitions are reports of common usage.

Topic XXXVII : Causation

11. (E452-53; T (1919) 66-67) Uddyotakara explains that a "manifested" thing is one which has the conditions of perceptibility or has qualities similar to perceptible ones. Thus atoms, though their qualities are not perceptible, do have color, etc., and so are also included under "manifested" things.

Objection: A jar, which is a manifested thing, is produced from the contact between its parts. But contact is not a manifested thing. Therefore the *sūtra* is in error. *Answer*: No. We do not mean that the only causal factors in the production of a manifested thing are manifested; only that some factors are.

21. (E456-67; T (1919) 79-100) God is an instrumental cause (*nimittakāraṇa*) of the world, since He helps men to reap the fruits of their actions. If God were not dependent on men release would be impossible.

God is an instrumental cause of the world and therefore must exist, because *prakṛti*, atoms, and *karma* cannot operate without a

conscious agent, just as an axe cannot cut without someone wielding it. *Objection*: But in the case of *prakṛti* the conscious agent is not God but rather the purposes of men themselves. *Answer*: Men can have no purposes until objects come into existence for them to take purposive attitudes toward. And if you say that objects were always in existence, then the action of *prakṛti* would be unnecessary. Furthermore, you (Sāṃkhyas) say that the equilibrium among the three *guṇas* changes when *prakṛti* begins to evolve—what causes this ? Not *prakṛti* itself, clearly, since it cannot evolve until the *guṇas* go out of equilibrium.

Others think that the specific cause of the world is atoms controlled by men's *karma*, but our arguments hold good here too. These unconscious things need a conscious agent. *Objection*: But unconscious things can be active—e.g., milk flows out of the mother for the nourishment of the calf, and just so atoms move for the purposes of men. *Answer*: The milk would not flow if the mother were dead. Generally, unconscious things do not move except under the influence of a conscious thing. Furthermore, it is only when a conscious thing controls the world that pleasure and pain, *dharma* and *adharma* occur. *Objection*: The conscious agent in these cases is of course the self. *Answer*: This cannot be, since *dharma* and *adharma* cannot come to be until the body and the senses have been produced for the self, and who produces them ? In addition, if the self were solely responsible it would not produce suffering for itself!

Objection: The conscious agents which in the world cause unconscious things to move are always themselves mobile, e.g., the potter. Now God is immobile, hence He cannot be the cause of the movements of unconscious things. *Answer*: Causes are sometimes mobile, sometimes not. E.g., two atoms in contact, whose movements have ceased, produce a dyad, or yarns (at rest) produce a cloth—so God can be a cause even though he does not move.

Objection: Does God create the world out of something or out of nothing ? If out of something, then He cannot be the creator of that something. If out of nothing, men's efforts are useless and release impossible. *Answer*: A man makes an axe out of wood and iron and then with the help of the axe he makes lumber. Just so God makes *dharma* and *adharma* and with their help makes the bodies of men. *Objection*: But at the time He is making one thing, He is not the creator of the material with which He is working. *Answer*: Who ever said He had to make everything at once! *Objection*: But what about the first thing He makes—is it made out of nothing ? *Answer*: There was no first thing.

Question: Why does God create the world at all? Some say for amusement (*krīḍa*), others say in order to show his power. *Answer*: Neither of these views is correct, for God gains nothing in either case, being without unhappiness and omnipotent already. Rather he creates because that is his nature: it is his nature to be creatively active. *Objection*: If so, he should be creating all the time and not in fits and starts. *Answer*: God's creative actions, however, are dependent on other conditions, viz., the proper time for *karma* to issue in fruition, other auxiliary causes, the collocation of the things to be used in the (particular) creation, etc.

Objection: Is God's omnipotence transitory or eternal? If transitory, then it would be better to say that there are several gods, but if there are several gods they would conflict and neutralize each other. If God's omnipotence is eternal then His *dharma* is useless, as it cannot be the cause of His powers. *Answer*: God's omnipotence is eternal. And He has no *dharma*.

Is God a substance, a quality, or what? He is a substance, like other selves; yet He is unlike other selves, since He has a peculiar quality. What is this quality? Eternal consciousness, as is shown by the fact of the activity of atoms, which proves that the consciousness of the agent of this activity must be unrestricted by a body—i.e., since the motions of atoms take place simultaneously in various locales, the agent of these activities must have an unrestricted consciousness.

Topic XXXVIII : Some Things Eternal, Others Not

40. (E480-81; T (1919) 141-43) Uddyotakara's own arguments against the *svabhāvavādin* who says "everything is an absence" are these. (1) A man who tries to prove this thesis either appeals to an instrument of knowledge, thus contradicting his own thesis, or does not and so has no proof. (2) The sentence the opponent proposes, if he understands it, must be an entity, which contradicts his thesis. (3) If he addresses his thesis to someone, he admits there is someone and so contradicts his thesis. (4) If he thinks his thesis contradicts another, then he admits that the two propositions have different meanings, but this contradicts his own thesis.

49-50. (E485-90; T (1919) (155-56) Here the *satkāryavādin*—who believes the effect preexists in the cause—is dealt with. His view is mistaken because: (1) Since activity presupposes a purpose on the part of the agent, in the form "I shall obtain this, and avoid that," and since on the hypothesis in question *this* and *that* are already in existence, there is nothing to obtain or avoid; thus all activities are pointless. (2) Inference too is pointless under such conditions,

since the knowledge it is capable of producing is held already to exist. *Objection*: Inference is for the purpose of removing ignorance. *Answer*: But if nothing new is produced, ignorance cannot cease. *Objection*: Well, in a sense something is produced, but since the effect already exists, it would be better to describe it as being manifested. *Answer*: What does "manifested" mean? If it means being produced, then you admit our thesis. If it means being perceived, then, since the perception is a new thing, you also admit our thesis. And the same difficulty attends any interpretation of "manifestation."

Opponent: All right, what is *your* proof of the nonexistence of the effect prior to production? *Answer*: Of course there cannot be any inference about a nonexistent thing. *Opponent*: Then what are we arguing about? *Answer*: We are arguing about the nature of the effect—whether or not it is the same thing as the cause, or different, e.g., whether the cloth is the same thing as the yarns which produce it.

BOOK FOUR : PORTION TWO

Topic XLIII : Whole and Part

12. (E505-08; T (1919) 216-20) *Objection*: You say that the whole is different from the parts. But then it should have a different color from the parts, just as yarns of different colors make up a cloth of variegated color (*citrarūpa*). Something which has variegated color is obviously multiple and not one whole. *Answer*: No. Variegated-color is one color; the list of colors includes red, green, blue...and variegated. If variegated-color were not one color, then you could not explain how a many-colored cloth is produced, since either it must be produced from a lot of variegated-colored yarns—in which case you admit that variegated-color is one color—or else it is produced from several yarns of various colors, in which case you admit our thesis.

Topic XLIV : Atomic Theory

25. (E514-20; T (1919) 238-48) If an atom were made of parts, it would not be an atom. Nor would it be an atom if it were a product. These truths follow from consideration of the meaning of the term "atom." *Objection*: Atoms must have parts, since they are capable of contact. For instance, you hold that two atoms combine to make a dyad, and three dyads to make a triad. Now in this triad—which consists of six atoms—one atom connects the other by being in contact with them, and therefore since the contact is in diffe-

rent parts of that atom, the atom must have parts. Or if you hold that all six atoms occupy the same point in space, then atoms could never produce larger objects. *Answer*: Our view is this. Qualities, which are immaterial, can inhere in the same locus and not increase the size of the things in which they inhere. Contact is a quality. Therefore a single atom can be involved in contact with several others and not be any different in size from before. But this contact does not reside in parts of the atom. Each contact resides in the pair of atoms which it qualifies. Therefore when you say "contact is in different parts of that atom" you misunderstand the nature of contact. And when two material substances are related by contact, there is increase in size, not because of the nature of contact but because two material substances cannot occupy the same place. *Opponent*: But if there are no "sides" to the atom—i.e., if it is not spread out spatially—then things could never screen other things, since things are made out of atoms. *Answer*: Screening is not due to spatial occupancy but rather to the fact that certain kinds of objects prevent others from being related to them.

Topic XLVI : The Falsity of Everything Refuted

34. (E521-24; T (1919) 259-63)[23] How can the idealist explain demonstration and refutation? Are they consciousness only? If so, nothing can ever be proved for the benefit of others, since everything is someone's dream and nobody ever dreams anyone else's dream! Furthermore, what is the difference between waking and dreaming? There are no real objects in either case, so there is no difference in the idealist view. But if there is no difference, there is no difference between *dharma* and *adharma*—for it is admitted that dream-incest is guiltless, so therefore waking incest must be also! *Opponent*: The difference between waking and dreaming is that in the latter case the person is asleep. *Answer*: How does one know when he is asleep? *Opponent*: Well, when we are asleep, our ideas are indistinct, while when we are awake they are distinct. *Answer*: But what do these terms mean when there are no objects? A distinct idea is a clear notion *of* something; as there is, in your view, nothing for ideas to be notions of, there are no distinct ideas, nor therefore any indistinct ones. *Opponent*: But even when there are admitted by everyone to be no objects we can still perceive a difference between distinct and indistinct ideas. For example, some souls after death have distinct ideas of certain unpleasant sights, such as a river of pus or a river of blood, but the objects of these ideas,

do not exist. *Answer*: Then these dead souls cannot very well have ideas *of* such objects, the objects being nonexistent!

Opponent: The result of an act should appear where the act is performed, and in our view it is so, since both an act and its results are the consciousness only of the agent. But in your view some acts are performed in one place and the results appear quite else where. *Answer*: We do not admit it; the results of an action appear in the self and nowhere else.

BOOK FIVE : PORTION TWO

Topic XLVIX : Ways of Losing an Argument

1. (E549-51; T (1919) 357-60) *Question*: Who or what is it that is convicted when one of the ways of losing an argument is committed and discovered? *Answer*: Not the proposition under discussion. It is as well or as poorly off as before. Not the argument for it. It proves whatever it proves, regardless of whether it is properly understood or not. Therefore it is the person who propounds the argument who is convicted.

Objection: Vātsyāyana says that the propounder of a true proposition as well as of false ones can be convicted by these ways of losing an argument ; but this must be wrong, as one who propounds a true doctrine cannot be defeated. *Answer*: Oh yes he can, since he may fail to identify his opponents' tricks of argument and therefore succumb to arguments which in fact involve fallacies.

11. (E555-56; T (1919) 375-77) Item No. 10 in the list of ways of losing an argument (the *aprāptakāla* type) suggests that the argument is defective if its members are stated in the wrong order. *Objection*: This is not a defect, since (1) despite the "error" the hypothesis is proved, (2) there is no fixed convention governing the proper order of statement, and (3) in any case the members of an inference are found to be reversed in all sorts of well accepted treatises. *Answer*: As to (1), this might be considered in analogy with treating an argument in which words are misused. Now although a poor word for something may well bring to mind the proper word for it, just as a misordered argument may bring to mind the proper argument, still it is important that words be so used as to suggest their proper meaning and not something else. So it is with arguments. As to (2), no, there is no convention, rather it is a natural order among the members that is being stressed. As to (3), the treatises in question are summary accounts of things and so have in view different purposes

of exposition than one has in mind when setting forth an argument in a debate.

10. ĀTREYA

Though, as mentioned earlier, the *Vaiśeṣikasūtras* suffered from lack of commentators, at least commentaries have been preserved for us since there are references to at least one such commentary in early times. The Jain writers Vādideva Sūri (fl. 1130) and Guṇaratna (fl. 1400) mention a *Bhāṣya* called *Ātreyabhāṣya* or *Ātreyatantra*, as does Vādīndra (1175-1225), a Nyāya writer treated below.[1] Vādideva calls its author "a ripe old leading Brahmin" (to adopt Thakur's translation of *varṣiyān viprapuṅgavaḥ*). He details the views of its author on three points : (1) On the presence of the term *guṇa* in the definition of substance given in *Vaiśeṣikasūtra* I.1.14, Ātreya says that it is necessary to specify that a substance is something which has qualities, since if that were left out the definition would overextend to include motionness (*kriyātva*). (2) With respect to the definition of a motion (*Vaiśeṣikasūtra* I.1.16), Ātreya glosses the term "independent" (in "being an independent cause of contact and disjunction") in order to show that Kaṇāda did not mean to say that motions can cause contacts and disjunctions without any other causal conditions operating. Motion is "independent" only in the sense that another noninherence cause is not required—or perhaps that no extraordinary sort of causal factor need be appealed to. Furthermore, Ātreya is said to have thought that this phrase about causing contacts and disjunctions constitutes the definition; the other properties specified in this *sūtra* merely describe motions, but are not differentiating marks. (3) The third matter on which Ātreya is quoted pertains to the question whether doubts and illusions can arise from the visual organ, and if so how. Ātreya seems to suggest that when the visual organ goes out to grasp a distant object all it can get are the generic, universal features and not the details. As a result, doubts and illusions are the natural outcome.[2]

The question of Ātreya's date is almost impossible to answer at present. There has, however, been a good deal of discussion about another old Vaiśeṣika commentary referred to by a number of writers, called *Rāvaṇabhāṣya*. This commentary is referred to by the Naiyāyika Padmanābha Miśra, and by the author of the Vedānta work *Prakaṭārthavivaraṇa*.[3] This latter writer attributes to the *Rāvaṇabhāṣya* the theory that the large (*mahat*) size, found in the triad and wholes, composed of four or more atoms, is produced by the loose aggregation

(*pracaya*) of two dyads. D.N. Shastri[4] suggests that the odd account of Vaiśeṣika theory expounded in Śaṃkara's *Brahmasūtrabhāṣya*, according to which two dyads produce a *caturaṇuka* or "quadruple-atom" instead of the usual account which has four triads producing a quadruple-atom, may be due to the fact that Śaṃkara gets his Vaiśeṣika from the *Rāvaṇabhāṣya*. Anantlal Thakur[5] suggests that when Mallavādin alluded to a commentary by Praśasta on the *Vaiśeṣikasūtras*, a *Vākya* and a *Bhāṣya*, the latter *Bhāṣya* may be the *Rāvaṇabhāṣya*, and its author may have been Ātreya. All of this is extremely speculative, and there is no hard evidence for much of it. That the *Rāvaṇabhāṣya* was an early text is clear from the fact that Jinendrabuddhi and Udayana know of it,[6] but whether it was Ātreya's work is unclear. Kuppuswami Sastri thought that the *Rāvaṇabhāṣya* was identical with the *Vaiśeṣikakaṭandī*.[7]

Equally mysterious are references to a *Bharadvājavṛtti*, which Udayana refers to in the *Kiraṇāvalī* and remarks that it depends on the *Rāvaṇabhāṣya* (if we can trust Thakur's memory !)[8] An old *Vṛtti* is also quoted by Śaṃkara Miśra and by Candrānanda, author of a commentary of indeterminate age which was published recently.[9] Ui[10] thinks this *Vṛtti* may indeed be the *Bharadvājavṛtti*, but there is no particular evidence for this and Faddegon denies that it is.[11] The recent work by Gaṅgādhara Kaviratna Kavirāja called *Bharadvājavṛttibhāṣya* is not on the old *Bharadvājavṛtti*, Ui asserts.[12] There is also the fact that Uddyotakara was of the Bharadvāja clan.

11. PRĪTICANDRA

As we have seen, Śāntarakṣita mentions this author along with Uddyotakara and Bhāvivikta as the major rivals of Dharmakīrti.[1] Apart from locating his date at or prior to the time of Dharmakīrti, however, nothing more can be learned from this information.

12. AVIDDHAKARṆA

We are now well into the dark period in the history of Nyāya-Vaiśeṣika literature, a period between the time of Uddyotakara and Jayanta Bhaṭṭa, spanning three centuries. All our information about the development of thought in the school during this time is necessarily inferential, at least until manuscripts at present unknown are discovered. (This is by no means impossible even today, however.)

Aviddhakarṇa is one of the most widely discussed authors of this period. References to him are found in various Buddhist works by

such writers as Śāntarakṣita, Kamalaśīla, and Karṇagomin. He is also known from Jain sources written by Abhayadeva and others.[1] It seems clear that he wrote a commentary called *Ṭīkā* on a *Nyāyabhāṣya*, presumably that of Vātsyāyana.[2] Kamalaśīla says that Aviddhakarṇa wrote a work called *Tattvaṭīkā*.[3] Thakur[4] thinks this may be the same work, but Mahendra Kumar Jain[5] has argued that in fact there were two Aviddhakarṇas, one the Naiyāyika who flourished between 620 and 700, the other a Cārvāka who lived in the 8th century. Śāntarakṣita and Kamalaśīla do attribute to Aviddhakarṇa views about inference which would seem to be extremely skeptical, and Mahendra Kumar cites Jain authority for Aviddhakarṇa's view that it is impossible to define the *liṅga* (= *hetu*) and that, since a valid instrument must give us information we do not already have, inference, which depends on memory, is not a valid instrument. It is for these reasons that Mahendra Kumar concludes that the *Tattvaṭīkā* is a different work, and by a different author, from the commentary on the *Nyāyabhāṣya*. On the other hand, Umesh Miśra[6] explicitly identifies the works. Oberhammer[7] also assumes they are the same, giving the name *Ruciṭīkā* to the commentary in question.[8]

Thakur, Mahendra Kumar, and Umesh Miśra report other views attributed to Aviddhakarṇa. (1) Abhayadeva reports him as agreeing with Uddyotakara's arguments refuting momentariness on the basis of pervasion. (2) He is widely quoted as arguing for the existence of God by two arguments. (a) An object, perceptible by two sense organs, or not perceptible at all, is produced by a conscious cause, because it possesses an arrangement among its parts, like pot, etc., or atoms, etc., respectively. (b) The material causes (*upādāna*) of an organism are dependent upon an intelligent Being, because they possess color, etc., like threads, etc.[9] (3) The destruction of an object occurs a moment after the thing exists, not simultaneously with its existence. Therefore it must have a distinct cause. (4) He agrees with Bhāvivikta and Uddyotakara that a substance can be perceived without any qualities. (5) He refutes someone's thesis that aggregation and continuity are *anirvacanīya*. (6) He distinguishes comparison from verbal testimony on the ground that the former gives us knowledge of objects, the latter of the relation of a name with an object. (7) Since the Buddhists deny the existence of selves, there is no possibility of their knowing invariable concomitance (*avinābhāva*). (8) Atoms must be eternal, because it is impossible to suppose that they have a creator. This last is impossible because no valid instrument can give us knowledge of such a creator, and thus the creator is unreal, like a hare's horn.

Aviddhakarṇa must precede Dharmakīrti, but otherwise we have no certain knowledge of his date.

13. ŚAṂKARA (SVĀMIN)

Śaṃkara is another old Naiyāyika of whom we hear much from Buddhist and Jain writers. He is also referred to by Jayanta at least once,[1] and by Vācaspati Miśra.[2] Oberhammer[3] concludes he must have lived between Dharmakīrti and Śāntarakṣita, and Steinkellner's study concurs.[4]

The title of the work he is known for is *Sthirasiddhi*. Thakur[5] has collected references to views he is supposed to have held, and Umesh Miśra[6] has also discussed some of these.

1. God has a body; in fact, He has several bodies.

2. The conditions for the perception of something are sufficient to bring about the perception of its absence. Thus, for example, one who is able to see light can also see darkness under the same conditions, for darkness is just the absence of light.

3. He is credited with two distinct definitions of the notion of "separate existence" (*yutasiddha*). (The importance of this notion comes in that inherence is defined as a relation between two things which are *ayutasiddha* "not separately existing.") (a) To exist separately is to be the locus *x* of a locus *y* which has the quality of separateness (*pṛthaktva*) from *x* (*pṛthagāśrayāśrayitvam*). (b) To exist separately, when it occurs in eternal things, is to have the ability to move separately (from other things) (*nityānām pṛthaggatimattvam*).

4. Every absence has a counterpositive.

5. Since contact is non-locus-pervading, and since what is called the color of the cloth is actually the color of the dye used to color the cloth, a cloth does not become colored "clear through."

6. Inherence of a whole in its parts is perceptible.

7. Universals have color and form, and are perceptible. In this way is explained the fact that we can have knowledge of objects which have been destroyed.

8. The causal efficacy (*śakti*) which some postulate to explain causation, is nothing more than the collection of causal factors (*sāmagrī*) sufficient to produce the effect. Likewise lack of causal efficacy (*aśakti*) is merely the absence of one of the necessary conditions for production. However, once an effect is produced, it can remain in existence even though its *sāmagrī-śakti* disappears.

9. One thing can cause several different effects, since it can play rôle in several distinct collections of causal conditions.

Śaṃkara must have been a very important member of the Nyāya school, for some of the views detailed above are not found clearly stated in writers prior to him, and are particularly appealed to by later writers such as Udayana. Furthermore, the Buddhist logician Ratnakīrti found it appropriate to write a whole work, *Sthirasiddhi-dūṣaṇa*, directed against Śaṃkara's treatise.[7]

As for the question of his date, he must have preceded Śāntarakṣita, who mentions him. Thus he must have flourished no later than the 7th century. A.D. Bhattacharya[8] says that Vācaspati Miśra refers to him, and that in Udayana's *Nyāyapariśiṣṭa* Śaṃkara is said to be "the head of a band of scholars differing from the Bhāṣya-Vārttika school." He places Śaṃkara prior to Trilocana.[9] But, he also says that this Śaṃkara, the author of *Sthirasiddhi*, should not be identified with Śaṃkarasvāmin, another old Naiyāyika. No arguments or clarification are given on this point, however, and most scholars have in fact made the identification.

14. VIŚVARŪPA; 15. DHAIRYARĀŚI

Jayanta Bhaṭṭa mentions several old Naiyāyikas in his play *Āgamaḍambarī*. Two are Viśvarūpa and Dhairyarāśi.[1] It seems that Viśvarūpa wrote a commentary called *Ṭīkā* on the *Nyāyabhāṣya*. Steinkellner[2] places both these authors in the first half of the 9th century.

Varadarāja Miśra in his *Tārkikarakṣā* refers to several views held by Viśvarūpa concerning the ways of losing an argument. He seems to have limited the fault of repetition or redundancy to certain contexts only, namely those where necessity (*niyama*) has been shown. In such a context, however, even the mere repetition of words constitutes a fault. Finally, concerning the 19th way of losing an argument (called *paryanuyojyopekṣaṇa*), which is committed when one fails to catch one's opponent making a mistake, Viśvarūpa is said to have held that this constituted a victory for a debater only if he pointed out the failure. If neither party catches his opponent, the debating assembly itself wins![3]

16. JAYANTA BHAṬṬA

Our next author is an especially interesting one. It seems that at the end of the 7th century a Gauḍa Brahmin of the Bharadvāja *gotra* named Śakti migrated from Bengal to Kashmir. His son, or

perhaps his grandson, Śaktisvāmin, became minister to king Muktāpīḍa (invested 733). Śaktisvāmin's grandson was named Candra: he may or may not be the Candra who commented on Prabhākara Mīmāṃsā works. Candra's son was named Jayanta Bhaṭṭa.[1] On the basis of the above genealogy one must place him toward the close of the 9th century. This is confirmed by the fact that one of Jayanta's works, a drama entitled *Āgamaḍambara*, was written during the reign of Sugandha Devi (904-906).[2]

The *Nyāyamañjarī*, Jayanta's major contribution to Nyāya thought, was probably written before the play. According to Jayanta's own account, it was written in jail. He says he is writing as a prisoner "in this cavern where no human voice can enter and I have beguiled my days here by this diversion of writing a book." We cannot really tell what occasioned Jayanta's imprisonment.

Jayanta seems to have had the benefit of an extremely versatile education. According to his son Abhinanda his family was deeply devout, thoroughly versed in Vedic lore. This is shown in Jayanta's obviously thorough knowledge of, and interest in, the topics and views of Pūrvamīmāṃsā. Yet he was no narrow-minded zealot; rather the reverse. A keen student of Buddhism, he acknowledges his respect for Dharmakīrti, and when he agrees with that Buddhist author he tells us so. Mookerjee likens Jayanta to Śāntarakṣita in that they both have tolerant and encyclopaedic command of the literature of their times. As for tolerance, though Jayanta is clearly a sincere believer in the authority of the Vedas, of Śaiva authorities as well as various *smṛtis*, and attacks the Buddha for being anti-Vedic, he nevertheless holds that differences among religious sects are unimportant, since they all seek the same end. God teaches according to the taste and capacity of the pupil. It is for this reason that different philosophies are promulgated, and all serious faiths should be tolerated.[3]

Jayanta was not only a scholar of philosophy. We have mentioned that he wrote a play, the *Āgamaḍambara*, which is being edited at Darbhanga.[4] He was, furthermore, a keen student of grammatical theory. According to his own testimony he wrote a treatise on grammar in his youth. Kane credits him with the authorship of several lost works on *dharma*.[5]

Despite his erudition Jayanta remains modest about his accomplishments, disavowing any originality. His prose style is engaging and good-natured. He sometimes pokes fun at himself and his fellow —e.g., he cites with glee a bit of doggerel suggesting that Naiyāyikas pay scant attention to the niceties of grammatical theory, preferring

to be taken in by the sterilities of logic. Jayanta's response points out the insipidity of grammatical studies.

Jayanta's great triumph is the *Nyāyamañjarī*. He is also credited with a small summary of it called *Nyāyakalikā*, although at least one scholar[6] has suggested that the work is a later compilation of sentences out of the *Nyāyamañjarī*.

Scholars had thought that references to Jayanta's work in Buddhist writings, as well as in Vācaspati Miśra's, were easy to find.[7] This became more difficult to say, however, when it was realized that Vācaspati's teacher wrote a work also called *Nyāyamañjarī*, and that some of the references were most probably to Trilocana's work. Since Vācaspati's date has been for some time now an important scholarly issue, the identification of the *Mañjarī* Vācaspati referred to is an important one. Some scholars believe that Jayanta cites and so must be placed after Vācaspati.[8] If the above reasoning about his date is acceptable, this would bring Vācaspati's date back into the 9th century. For various reasons this date for Vācaspati is unacceptable (see below).

NYĀYAMAÑJARĪ on Gautama's *Nyāyasūtras*

(Prepared by Janakivallabha Bhattacharya, Usharbudh Arya, and Karl H. Potter).

Though the work is in a sense a commentary on the *Nyāyasūtras*, by far the largest portion of it treats Nyāya topics under the rubric of *pramāṇa*, and the remainder takes up the topics listed as *prameyas* or objects of valid knowledge in *Sūtra* I.I.I. In the following summary, therefore, we do not follow the topics utilized in the summaries of the *Sūtras* and other commentaries thereon, but develop a new scheme. Numbers in parenthesis to the left of a paragraph will be used merely for reference purposes.

References are as follows : "E" precedes page citations from the edition of Surya Narayana Sukla, Kashi Sanskrit Series No. 106, Benares 1936. "T" precedes page citations from the translation of Janakivallabha Bhattacharya in the *Calcutta Review*, seriatim from October 1952 through March 1955. Each citation covers pages up to the next citation.

I. INTRODUCTORY SECTION. (E1-5; T 1-7 [Oct. 1952])

1. After 16 verses of salutation to Śiva, etc., Jayanta proceeds to explain the utility of scripture. The purpose of scripture is to help

people attain the unseen (*adṛṣṭa*) ends of man (*puruṣārtha*). Now scripture has 14 branches, of which Nyāya (also called *tarka*) is one, the other being the 4 Vedas, Mīmāṃsā, the so-called 7 ancillary sciences (viz., grammar, astronomy, phonetics, ritual, prosody, etymology, and Vedic exegesis), the Purāṇas, and the Dharmaśāstras. But of these *nyāya* is the most important, since upon its success rests any hope of defending the validity of the Vedas. Sāṃkhya, Jain, and Buddhist logic are not sufficient to establish the Vedas' validity. In this treatise Jayanta proposes to refute their arguments. As for the Cārvākas, they can be ignored since their logic is so poor. And the Vaiśeṣikas follow the Naiyāyikas very closely.

2. *Objection*: If the purpose of Nyāya is to defend the validity of the Vedas, then it is unnecessary, since Mīmāṃsā does that. *Answer*: True, Mīmāṃsā tries to do it, but its main emphasis is on interpreting the Vedas, not on defending their validity. And it will be shown below that the Mīmāṃsakas are not very good at defending validity when they do try.

3. *Objection*: If the Vedas cannot validate themselves, no one else can— for how are we to know that Gautama, the author of the *sūtras*, is trustworthy? *Answer*: And how are we to know enough to trust Pāṇini on etymology? These sciences, like the Vedas, are always present. The authors of treatises concerning them merely report their content and discuss it. *Objector*: Then the Vedas *are* intrinsically valid! *Answer*: True, but the point of discussing and defending them is to enlighten unlearned people. None of the branches of science are meant for those who already understand them.

4. (E5-11; T 7-81 [Nov. 1952]). The question is raised as to why anyone should read a book if he is not convinced that it will be useful to him. The paradox is posed that in order to find out that a book is useful it must be read. The answer given by Jayanta is that the opening sentence of a book—here, the first *sūtra*—gives the aim of the book, and this is enough to keep the reader interested even though he may initially doubt some of the tenets of its author.

II. THE CATEGORIES

5. Jayanta now briefly describes each of the 16 categories. Each is defended. An objector asks why tenets should be specified as a distinct category. The answer is that it shows that the object to be inferred has the property it is supposed to have. But, the objector continues, if we do not doubt that the object has this property, no inference will result—so why list this as a distinct category? True,

says Jayanta, but not all inferences are intended to prove doubtful objects. There is no rule that inference must not ever be applied to cases where nothing is in doubt.

III. DEFINITION OF INSTRUMENT OF KNOWLEDGE

7. An instrument of knowledge is to be defined as the collection of all the conditions of true judgment, i.e., judgments which are other than illusory or doubtful. *Objection*: Then, since the knower, the object, and the act of judging are all conditions of true judgment, but no one of them the collection of all conditions, none of them are instruments of knowledge. But this runs counter to ordinary ways of speaking. *Answer*: Nevertheless, the collection of causal conditions is the only thing which is regularly followed by the effect; therefore only it can be called the "instrument." *Objector*: But the collection of causal conditions cannot be said to "change," while the instrument of knowledge must be allowed to change as it produces its result. *Answer*: Though the collection does not change, some of its constituents do, and it is their change which is spoken of as the change of the instrument. The collection, it should be remembered, is not itself a whole individual, but merely an aggregate. That is why we say we see with our eyes, but not with the collection of causal conditions of visual perception.

8. (A Buddhist objection) Some say that the instrument of knowledge is (some kind of) consciousness (*bodha*). Consciousness can result from the action of an instrument of knowledge, but cannot by itself be the instrument, since not all consciousness issues into further results. Therefore consciousness may be part of the instrument of knowledge but cannot exhaust it.

9. Others hold the following view: Consciousness is an instrument of knowledge when it is followed by both an object and knowledge of that object. There are parallel series of phenomena: one series is known as "objects", the other as "judgments", and one does not occur without the other. *Answer*: This will not do. For one thing, it is generally accepted that an instrument of knowledge is so called because it produces true judgments, but in this view it also produces an object. Again, a momentary instrument cannot change and thereby produce a result. Other points will be elaborated when idealism is refuted.

10. (Vs. Mīmāṃsā) According to Śabara, consciousness is the instrument of knowledge, but unlike the Buddhist he holds that the result produced by this instrument is different from the instrument.

This result is the knownness (*jñātatā*) of the object. According to Śabara judgment is a motion, for nothing can be achieved without some action being performed. Thus when we find that an object has been known—and so has knownness—we infer back to the presence of an instrument of knowledge. Kumārila holds that presumption (*arthāpatti*), and not inference, is the means by which we conclude the presence of the instrument. But both Śabara and Kumārila agree that we do not know the instrument directly.

11. Jayanta responds that judgment is not a motion. Although some of the conditions, which make up the collection which is the instrument, may move, the collection itself does not move. Jayanta's procedure is to try to get the Mīmāṃsaka to admit that the "motion" of judging is supersensuous, and then to argue that this supersensuous motion is superfluous and can be dispensed with. Furthermore, Jayanta claims that Śabara cannot infer a supersensuous motion, since no *sapakṣa* is available. The Mīmāṃsaka remarks that if that is so, Jayanta cannot infer the existence of his self, since no *sapakṣa* is available. Jayanta's answer is no, that the inference to the self is not on the ground of similarity to an *sp* but on the ground of falling under a universal property. In addition, knownness, which the Mīmāṃṣaka says is the mark from which the motion of judging is inferred, is itself not perceived in the object and so cannot function as a mark.

12. As for Kumārila's theory that the act of judging is known through presumption, Jayanta claims that there is no room for presumption, since whenever we make a judgment we immediately thereafter entertain a judgment about that judgment.

The Mīmāṃsaka, however, does not accept the view that the second judgment is distinct from the first. He holds that a judgment reveals its object and itself all at once. Jayanta proceeds to refute this. His arguments: (1) We cannot know that a judgment is about *x* if we do not first know *x*. (2) If objects can reveal themselves then we all become omniscient in the twinkling of an eye. (3) Suppose, then, the Mīmāṃsaka says that the object reveals itself under the conditioning of its relation to a knower. Jayanta replies that nothing like this is found elsewhere. A lamp reveals itself independently of any conditioning. (4) Suppose it be said that objects reveal themselves like the number 2, which reveals itself when the knower is in a proper frame of mind. Wrong, says Jayanta; it is not the number which does the revealing, but the knower who counts "one, two"!

13. Now Jayanta gives his own view. The self, the knowing subject, has a quality of judgment (here, *saṃvedana*) which illuminates an object. This illumination, however, is not the result of knowing but a factor in knowing. Furthermore, it needs another judgment to illuminate it. But this will be discussed later.

14. (Another view) Some say that an instrument of knowledge cannot know an object which has already been apprehended. Its object must be new, or the judgment does not count as (valid) knowledge. Jayanta replies that this requirement is unnecessarily rigid. Recognition, which is generally accepted as a kind of knowledge, could not be so on this account. The opponent, however, points out that Nyāya rejects memory as a kind of true judgment: if Jayanta does not accept the requirement that the object of knowledge must not have been previously presented, he will have to contradict the tenets of his system and admit memory. No, says Jayanta, the reason memory is not a kind of true judgment has nothing to do with the fact that the object has been known before. The reason memory is not a kind of true judgment is just that its object is not among the causal conditions which produce the judgment which grasps it.

15. (Buddhist Logicians) Others say that an instrument of knowledge is that which "does not baffle movement" (*avisaṃvādi*), which does not block our attaining the object. The theory of the Dignāga school is elaborated. There are two instruments, perception and inference. Perception gives us determinate apprehension of a series of objects similar to the series of *svalakṣaṇas* which per se are unattainable. Inference, though it grasps ideas which are per se imaginary, causes us to attain our objects and is therefore an instrument of knowledge.

Jayanta criticizes this view. Since the Buddhists admit that the actual object of perception, viz. the *svalakṣaṇa* or "bare particular," is never attained, no judgments are ever true in the Buddhist logicians' account.

16. The Buddhist now defends himself by distinguishing the level of conventional experience from the level of higher truth. The external world has no real existence from the higher standpoint, and from that standpoint there are no true judgments. But from the conventional standpoint what we have said above holds good, they aver. Jayanta here questions the status of the ignorance (*avidyā*) which is held to produce conventional experience. Is this ignorance real or unreal? Furthermore, he adds, the Buddhist account fails to make room for objects toward which we are indifferent. Surely

we can have true judgments about objects which we neither want to attain or avoid.

17. Jayanta also refutes a Buddhist analysis of illusions, e.g., a mirage. Why do we not say that the judgment of water in the desert is a true judgment, since it reveals its object? The Buddhist says that the judgment does three things: (1) it reveals the ray of the sun which causes the illusion, (2) it fails to reveal the sand, and (3) instead it reveals water which is not causally connected with the sun's ray. This composite judgment is true in its first function but false in the other two. Jayanta's answer is that even the first function is false, for the sun's ray is revealed as permanent whereas the Buddhist holds it to be in reality evanescent.

18. (Sāṃkhya) (E24; T182 [Dec. 1952]). Next the Sāṃkhya account is introduced. In this view different modes of the *buddhi* are the instruments of knowledge. Now the *buddhi* is unconscious, being an evolute of *prakṛti*, but it attributes its modifications to the conscious *puruṣa*. Jayanta reserves criticisms of Sāṃkhya till later, but points out that the Sāṃkhya wants to say both that *buddhi* is and is not a property of *puruṣa*.

IV. THE NUMBER OF INSTRUMENTS OF KNOWLEDGE

19. (E24-27; T 184 to end [Dec. 1952]). Jayanta wants to interpret the fourth *Nyāyasūtra* so as to apply to all 4 instruments of knowledge (not just to perception). Thus the terms "produced by an object," "does not wander," and "is well-defined" serve to identify the common features of instruments of knowledge and to rule out memory, illusion, and doubt.

20. (Vs. Buddhists) (E27-33; T1=11 [Jan. 1953]) As there are only two kinds of objects, so there can be only two kinds of instruments of knowledge to grasp each of them, say the Buddhists. To prove that there is no third kind of object in addition to perceptible and imperceptible ones (pure particulars and universals) the Buddhist is made to appeal to the principle of excluded middle. There can be nothing which is neither perceptible nor imperceptible. The Buddhist goes on to justify the principle of excluded middle, suggesting that if it were not accepted practical activity would be brought to nought, since we would not know that, e.g., to avoid an object we ought to refrain from attaining it.

21. Now perception is able to grasp perceptible objects, and inference can grasp imperceptible ones. Where is the need for any additional kind of instrument? E.g., why admit, in addition, verbal

testimony if it is supposed to grasp a universal? Nor can instruments cooperate in grasping objects; since pure particulars and universals are mutually exclusive, perception and inference are also. If, *per impossibile*, inference is allowed to grasp the pure particular, then there will be no function left for perception.

22. Jayanta complains that the Buddhist assumes that perception can report the perceptibility of its object, whereas perception only grasps the object, not its perceptibility. Nor does a perception report that the object has been perceived; that is a separate judgment. This will be treated at length later. Therefore the Buddhist cannot know, on the basis of perception alone, that there are only two kinds of objects, since perception cannot grasp an object as perceived or perceptible.

23. But suppose we admit that there are only two kinds of objects. Still, the Buddhist's conclusion does not follow. For the distinction among instruments of knowledge is to be made according to differences in the conditions determining them, not according to the number of kinds of objects.

24. As for the Buddhist contention that one object cannot be known by cooperating instruments, this would make inference impossible. Inference requires knowledge both of the *sādhya* and the pervasion of the *hetu* by the *sādhya*. Here perception grasps one of them, and the other is known by inference. If both were known by separate inferences, there would be an infinite regress. The Buddhist tries to escape by pointing out that pervasion is imaginary and so not an object of either perception or inference, but Jayanta will not have that; a real object cannot participate in an imaginary pervasion.

25. Nevertheless, there is a sense in which different instruments must have different objects; but what the Naiyāyika insists on is that the underlying substratum is the same, though the properties judged to belong to it may be different when approached by perception, inference, or verbal testimony.

26. Bhāṭṭas on presumption (*arthāpatti*) (E33-40; T11-95 [Jan. 1953] and [Feb. 1953]. Kumārila's followers add *arthāpatti* and *anupalabdhi* to the list of instruments of knowledge. Presumption works as follows: When we learn something and find it difficult to understand, we postulate or assume something else in order to understand it. There are 6 kinds of presumption, depending on which of the 6 instruments gave us the bit of learning we found difficult to understand. Examples of each of the kinds are given. The stock example is this: Caitra is not at home, but he lives; therefore he must be out. Presumption is not inference, since the *hetu being not*

at home is not pervaded by the *sādhya being out* (*i.e., somewhere else*). It is not *anupalabdhi*, for *anupalabdhi* grasps absences in a definite locus, and Caitra's absence is not always in a definite locus. Consider "Caitra is at home, since he lives and he is not anywhere else." Here we cannot search everywhere else for the absence of Caitra—he may be moving around too!

27. Jayanta's reply is that nevertheless presumption is a kind of inference after all, for the simple reason that from a knowledge of one object nothing follows about any other object unless there is some pervasion relation between them. But just because we do not know in a given case what the relation is between two objects does not mean there is not any, or that we should therefore invent a new instrument to explain our knowledge. And the Mīmāṃsakas do admit that there is at least a regular relation between the problematic piece of knowledge and the assumption which solves it.

28. A diversion occurs now, as Jayanta deals with the Mīmāṃsā view that a new category of causal efficacy (*śakti*) must be introduced to explain actual production of an effect. (The Mīmāṃsaka uses presumption to substantiate his contention.) This causal efficacy belongs to the causal conditions; we must assume that it does, because otherwise we could not explain how the effect can fail to take place when the causal conditions are present and collected. For example, if a man takes poison he dies, but if certain incantations are spoken, he does not. What is obstructed by the incantations? Not the poison —he swallowed that. Therefore we must postulate a causal efficacy which the incantation obstructs.

29. Jayanta answers that the effect does not occur in such cases because the incantation disturbs the collection of causal conditions; the absence of such disturbing factors is one of the causal conditions itself. Indeed, after the incantation is spoken we have a new collection of conditions. Anyway, how is it that the causal efficacy is affected by the incantation? Is this causal efficacy itself a sufficient condition, or does it need help to produce its effect? If the former, it will always produce its effect and no incantations can stop it. If the latter, it is merely a superfluous causal condition.

30. (Prābhākaras on presumption) (E41-45; T95-214 [Feb. 1953] and [March 1953]). The other branch of Mīmāṃsā has a different account of presumption. According to the Prābhākaras, while in inference the *hetu* cannot exist in the *pakṣa* unless the *sādhya* does, in presumption the relation is reversed: the *sādhya* cannot exist in the *pakṣa* unless the *hetu* does. We reason from the *sādhya* to the *hetu*.

31. Jayanta says the issue between Nyāya and Prābhākara is verbal. The reasoning "Living Caitra is not in his house, therefore he is out" surely involves implicit appeal to a pervasion between *living Caitra's not being in his house* and *living Caitra's being out of his house.* Whichever of these two things one starts with, that is the *hetu* and the thing one reasons to is the *sādhya*. So presumption is merely inference.

32. There is a lengthy discussion here about the type of presumption originating with judgments heard from scripture. The Bhāṭṭas wish to use presumption to complete overly short Vedic utterances. The Prābhākaras, on the other hand, do not believe there is any presumption of the scriptural sort. Jayanta's idea is that Vedic sentences can be completed using inference alone. The Prābhākara-view necessitates their holding that a sentence contains more words than are actually heard, and this opens them to charges of irresponsibility from the standpoint of the Bhāṭṭas.

33. (Vs. Bhāṭṭa Mīmāṃsā on nonapprehension (*anupalabdhi*). (E46-51; T214-16 [March 1953] and [April 1953]). The Bhāṭṭas think that knowledge about a negative object is gotten through an instrument which consists in the nonapprehension of any of the standard proofs for the occurrence of the counterpositive of that object. More specifically, we perceive the locus of the absence, and remember the counterpositive; then the internal organs together with this instrument of nonapprehension produce the judgment "there is no pot here." Or on occasion we shall not actually be at the moment perceiving the locus, but remembering it too. This process of nonapprehension, say the Bhāṭṭas, is not inference. If it were inference, it would involve a fallacy, for what is to be taken as the *hetu*? Not the locus, surely, for it is the *pakṣa*. Nor can we take the *hetu* to be the nonperception of the counterpositive, since this nonperception is not a property of this locus (viz., the ground). If we say it is, we are guilty of the fault of reciprocal dependence, for *that*— this property belongs to this locus—is what constitutes the conclusion. Therefore this judgment is not arrived at by inference.

34. Jayanta's reply is that negative judgments can be explained without recourse to this additional instrument. Sometimes we see absences with our eyes. If the Mīmāṃsaka complains that an absence has no color and visible objects must have color according to accepted Nyāya tenets, Jayanta answers that that account only applies to positive objects, not to negative ones. In the case of negative objects, the relation linking the eyes with the object is that of contact-with-qualifier-relation (*saṃyuktaviśeṣaṇabhāva*), the same relation by which we perceive inherence.

35. Now as to the case, mentioned in section 33, where we are not perceiving the locus but remembering it along with the counterpositive, the Naiyāyika says that what happens, e.g., when we report that there is no one named Garga living in a certain village, we are remembering our perception of Garga-absence which we had when we were previously in the village. The Mīmāṃsaka objects that we formed no such judgment at the time. Jayanta replies that we always form the general judgment "I see these things and nothing else." *Objection*: But how can we be said to remember the object of a judgment we did not actually make explicit? *Answer*: You also must admit that in inference, on your own account, the inferrer remembers objects he may not explicitly have noticed previously.

36. (Vs. the Buddhists on nonapprehension) (E51-57; T6-98 [April 1953] and [May 1953]). The "red-clothed ones" say that there are no independent negative things, only negative judgments. There is no relation to connect a negative object with positive ones—neither inherence, nor contact, nor the relation of qualifier to qualified, which last (says the Buddhist)— is not a distinct relation at all. But, says Jayanta, the Buddhist cannot explain away an absence as merely another kind of positive entity. For example, the absence of a jar after it has been smashed is a different thing from a bunch of potsherds. If the absence were merely the potsherds, it would follow that if the potsherds were destroyed the pot should come into being again!

37. The Buddhist replies: What is it that distinguishes one absence from another? Nothing negative. It is the difference between their counterpositives. Now the Naiyāyika thinks that an important reason for admitting independent absences is to distinguish positive things from each other. But the result is reciprocal dependence, for we see now that the negative things need to be distinguished themselves.

38. At this point Jayanta reviews 11 kinds of nonapprehension, and asks what their function is supposed to be in the Buddhist view. The 11 kinds are : (1) nonapprehension of a thing's own nature; (2) nonapprehension of the thing's cause; (3) nonapprehension of its pervader; (4) nonapprehension of its effects; (5) nonapprehension of a nature in it contrary to that of the thing; (6) perception of the effect of something contrary; (7) perception of pervasion by what is contrary to the thing; (8) perception of the contrary of the thing's effect; (9) perception of the contrary of its pervader; (10) perception of the contrary of its cause; and (11) perception of the effect of the contrary to the cause.

39. According to the Buddhist, nonapprehension does not produce a negative judgment, but rather the potentiality for such a judgment. This explains how he can hold that, in nonapprehension, the *hetu* is not different from the *sādhya*, e.g., that the nonapprehension of something is identical with the absence of that thing. Jayanta asks how potentiality, which is a positive thing, can be said to be nondifferent from nonapprehension, which is a negative thing. The Buddhist answer is that nonapprehension is not a negative thing; rather it is the positive awareness of something other than what is expected. As a result, the Buddhist holds that we can only frame negative judgments about particular perceptible things. We cannot prove "There are no sky-flowers," for example, by nonapprehension.

40. Jayanta's refutation of the Buddhist view is as follows. Consider "there is no pot here." The Buddhist takes this to be a positive judgment about the place called "here"—and so do the Naiyāyikas. But the rest of the judgment cannot be explained satisfactorily in the Buddhist fashion—for what positive thing is "no pot" supposed to refer to? The Buddhist seems to say that the whole judgment is positive, being about the place called "here." But if so, then "there is a pot here," being equally about the place called "here," has as much right to be called a negative judgment as its contrary. The difference between positive and negative judgments then becomes merely verbal. But Jayanta contends that it is of the utmost importance to distinguish them.

41. As for the first difficulty, cited by the Buddhist in section 37, that there is no relation to connect negative things with their positive loci, Jayanta's answer is merely that no relation is required in the case of absences. Or if one wishes one may introduce a qualifier-qualified-relation to explain it. After all, in philosophy we move from experience to theory, not vice versa.

42. Actually, the Buddhists must in consistency hold that a jar does not exist (since they hold that reality is evanescent). Therefore they must in any case accept the thesis that there are independent negative things. They try to avoid this by playing tricks with grammar, but such attempts must fail.

43. (Vs. Prābhākaras on nonapprehension) (E57-59; T98-99 [May 1953]). The Prābhākaras also deny negative entities, holding instead that the perception of or failure to perceive a positive object constitutes the criterion of the reality or unreality of that object. However, says Jayanta, this will not do. For example, we cannot perceive water far underground, but we do not use this as a criterion to establish that water far underground does not exist. Here the

Prābhākaras try to distinguish between universal nonapprehension and conditional nonapprehension : only the former leads to negative judgments, while the conditional sort—e.g., the nonapprehension of water far underground—does not. But then what about the failure to perceive a sky-flower, or a demon? Are these conditional or universal? Surely there is a difference between them—a sky-flower cannot exist, but a demon might.

44. Furthermore, the Prābhākaras, unlike the Buddhists, hold that the referents of words are real things. Since there is a word "not," there should then be negative entities in their view.

45. (The kinds of absences) (E59; T100 [May 1953[). Jayanta, deviating from the usual Nyāya view, holds that there are only two kinds of absence: prior absence and posterior absence. Mutual absence, usually counted a distinct variety, is just prior absence limiting other objects as their *upādhi*. Absolute absence is prior absence without any limits, while limited absence (*apekṣābhāva*) is prior absence considered within a limited range. Finally, what some call absence of capacity (*sāmarthyābhāva*) is either prior or posterior absence depending on cases.

46. (Concurrence and tradition rejected as instruments) (E59-60; T100-02 [May 1953]). Concurrence (*sambhava*) is knowledge of a part derived from knowledge of the whole; but this is merely a kind of inference (e.g., "since there are a thousand people in the room, there are a hundred people there"). Tradition is verbal testimony if it is true, and not an instrument at all if it is not.

47. In a passing reference to Cārvāka views, Jayanta remarks that the Cārvāka must have other sources of knowledge to be so confident in denying the ones the orthodox schools accept.

V. PERCEPTION

48. (What does the *sūtra* define?) (E61-68; T103-94 [May 1953] and [June 1953]). Jayanta sets about interpreting and defending Gautama's definition of perception in *sūtra* I.1.4. The first question raised is whether the qualifying adjectives in that *sūtra* are meant to describe the instrument itself, or the collection of causal conditions of perception, or the resulting knowledge. The critic finds fault with each interpretation. Jayanta suggests that the third interpretation could be substantiated by inserting the word "whence" into the *sūtra*. Then the definition will describe the knowledge resulting from whatever satisfies the adjectives. And two sorts of thing may satisfy these

adjectives : (1) the collection of causal conditions whose result is perceptual knowledge; (2) the perceptual knowledge whose result is the judgment that the object is to be obtained, avoided or viewed indifferently.

49. This last line of thought is questioned. What is the relation between the perceptual knowledge and this later judgment of evaluation ? There are several steps : (1) perception of a wood-apple (say); (2) memory that a former wood-apple has given pleasure, (3) memory of the generalization that wood-apples give pleasure; (4) application to this wood-apple; (5) memory that things which give pleasure are worth obtaining; (6) application to this wood-apple. Now with so many steps intervening, how can we hold that perceptual knowledge results in the evaluative judgment?

50. Here the view of an *ācārya* is related. This teacher agrees that the perceptual knowledge is not the instrument of the evaluative judgment, that this object belongs to the class of pleasure-giving wood-apples, and from this we infer (4), which in turn, together with sense-object-contact, produces the final perceptual judgment (6). On the authority of Vātsyāyana, Jayanta concludes that this allows us to say that the evaluative judgment is the mediate result of the perceptual judgment.

51. Others interpret the matter differently. They think that judgments (4) and (6) are identical, and that therefore the intervening inferential step is unnecessary. Jayanta appears to sympathize with this view.

52. A new objection: (4) is a judgment to the effect that a wood-apple has the power to give pleasure. But such a judgment cannot be perceptual, since power is not the sort of thing that can be perceived. And since inference depends on perception, it cannot be inferred either. Jayanta's answer is simply that power can be perceived. The power to give pleasure is, in his view, merely the collection of causal conditions. What perceives this collection ? The internal organ, says Jayanta.

53. Dignāga's view that the instrument and its result are identical is now discussed. If it were so, says Jayanta, they should have the same locus —indeed, Dignāga says they do. But in fact a cause and its effect do not always have the same locus. In the Buddhist theory of evanescence, in fact, they could not; the notion of "locus" is a peculiar one in a Buddhist's mouth.

54. If this view is untenable, even more so is the view, also found among Buddhists, that the instrument, the object, and the resulting judgment are all three identical, that the distinction among

them results from an abstraction within one and the same consciousness.

55. (Sense-object contact) (E68-72; T194—to end [June 1953]). Which kinds of things can be grasped by the sense organs? The 5 sense-qualities and their respecitve universals, some of their loci, some other qualities such as number, motions, and the universals inhering in all of these, and absences. The 6 kinds of relation between sense and objects are reviewed and illustrated (cf. pp.307-08).

56. Why does the *sūtra* say that perception is a judgment? One possible explanation is that it is intended to exclude such a thing as pleasure from the scope of the definition. The Buddhists however, think that pleasure and pain are kinds of judgments. But they are wrong, for judgments reveal their objects, while pleasure and pain do not. This lack of intentionality in feelings differentiates them from judgments. Of course, the Buddhist does not believe in this intentionality since he denies the external existence of objects and therefore there is nothing to be intended. He says pleasures and judgments are both like the lamp, lighting up themselves as well as everything around them. As has been argued, though, judgments are not self-luminous, says Jayanta, and if pleasure were held to be self-luminous, then everything around a happy man should be happy too.

57. Why is the adjective "nonwandering" (in the *sūtra*) necessary, since it could only apply to judgments and it is already specified in the definition that part of the definition is that perception be a judgment? Jayanta says that pleasure also can be erroneous. E.g., the pleasure derived from another man's wife is a false pleasure, because it is condemned by scripture, just as the cognition of shell as silver is a false perception, since it is sublated by perception.

58. Again, the adjective "well-defined" (in the *sūtra*) is not applicable to pleasure, but only to judgments, claims an objector. But this adjective, says Jayanta, has a different function. It precludes the definition's overlapping so as to include doubt. Then why is the word "judgment" necessary? In order to give the adjectives something to qualify.

59. (The word *avyapadeśya*) (E73-82;T7—108 [July 1953] and [Aug. 1953]). Jayanta first gives us the interpretation of the "old logicians." According to them it means that perception is not expressible in words. But this interpretation cannot be correct. A second interpretation is that the adjective serves to exclude knowledge gained from verbal authority, e.g., when someone tells me that the tree I am looking at is a jack-fruit tree. However, says Jayanta, as long as such verbal knowledge is caused by sense-object-contact and

satisfies the other adjectives in the definition, it should be counted as perception. But he eventually rejects this interpretation of the word *avyapadeśya* on the ground that it makes some judgments derive from two sources—sense-object-contact and verbal authority—and it is difficult to see how such judgments can be falsified.

60. Jayanta's own view is this. The word *avyapadeśya* is intended to exclude the (impossible) judgment about a cow, say, which is derived at the same time from the eyes and the ears—the eyes seeing the cow, the ears hearing the word "cow." Such a judgment is impossible, since the cow cannot be heard and the word cannot be seen. Rather, the judgment "this is a cow" results from perceiving a cow and remembering the word "cow." The word is not a source of knowledge here; indeed, we never apprehend the word all at once, but only know the letters one at a time and our hearing of the last letter together with memory of the preceding ones gives us verbal knowledge. However, the definition of perception is intended to include within perception the nonpropositional awareness (*nirvikalpakapratyakṣa*) of the object prior to its association with words.

61. Some teachers disagree, however, and think that the judgment "this is a cow" is not verbal knowledge but rather a species of perceptual knowledge. Jayanta considers this and rejects it. If this judgment were perceptual, then it would have to be given to us through our hearing the word "cow." But this is absurd. We do not have to hear the word "cow" in order to frame the judgment "this is a cow." The objector tries to save his view by arguing that the word "cow" is both the object and the instrument of the knowledge, just as the sun's light is both the object and the means by which we see it. Jayanta argues in return that there are two acts of seeing involved which have been conflated by the opponent.

62. But, continues the objector, why is not "this is a cow" a visual judgment? Why don't you say that we see with our eyes the object called "cow"? After all, in cases of illusion you say that you see an object called "water," although there is no water in contact with our visual organ. Likewise here. But, answers Jayanta, our account of illusion is just that water is first grasped by the internal organ and then perceived (mistakenly) by our eyes. Likewise here, the word "cow" is first remembered and then the cow is perceived by our eyes.

63. In the objector's view, all propositional perception is verbal knowledge. As a result he cannot explain how we come to know that, e.g., the word "cow" refers to cows. In order to explain this he must

appeal to some other source of knowledge—but which one? Verbal authority? But this would mean that the cow already is qualified by the word "cow," and as a result the word "cow" would denote itself! And the definition of perception must accommodate propositional perception, or the Buddhists will have a field day.

64. In the last analysis, however, Jayanta confesses inability to make up his mind among the various interpretations of this word, and leaves the reader to choose.

65. (Nonwandering again) (E82-84;T108-111 [Aug. 1953]). This adjective in the definition of perception serves to exclude illusion from perception. Three theories of Naiyāyikas about the content of an illusion are presented here: (1) What is presented in the mirage are the rays of the sun, which conceal their specific character and assume the form of water. (2) The characteristics (*ālambana*) of water elsewhere are presented here. (3) Water is presented, but the condition of its presentation is the rays of the sun.

66. What about hallucinations, which have no content—or so it seems? These are caused either by memory or by merit and demerit. In any case, they are not produced by sense-object contact, as illusions are, and so are ruled out of the scope of the definition of perception by the first clause of the definition.

67. (Well-definedness again) (E84-86; T111=211 [Aug. 1953] and [Sept. 1953]). This adjective serves to exclude doubt. *Objection*: The only cause of doubt is the internal organ, so this adjective is unnecessary, doubt already being ruled out by the first clause. *Answer*: No, some doubts are produced by the sense organs. *Objection*: A doubt is an error; therefore doubt is ruled out by the term "nonwandering." *Answer*: No, doubt and error are different.

68. A group of philosophers called here "Pravaras" hold that both doubt and error are propositional judgments, and that only a non-propositional judgment qualifies as perception. Therefore, they say, only one adjective, namely *avyapadeśya*, need be given in order to preclude doubt and error. But this has been refuted when Jayanta showed that propositional perceptions are not verbal knowledge.

69. (The Buddhist definition of perception) (E86-93; T211-13 [Sept. 1953] and [Oct. 1953]). The Buddhist definition considered here is that perception is conceptual construction (*kalpanā*) which is free from determination by the imagination (*apoḍha*) and is non-illusory (*abhrānta*).[10] First, the Buddhist claims that all judgments expressible in words are false, since they do not grasp a momentary pure particular as it is but instead through its relation with something else, and in reality it has no such relation. Secondly, among

these false judgments some are vivid, since they follow closely on a nonpropositional awareness; others are not vivid, since they are purely imaginary, as we might put it. It is the first of these last two types of judgment that the definition under discussion singles out as "perception."

70. Jayanta criticizes this by pointing out some 7 different kinds of reasons which seem to be given by Buddhists in distinguishing false judgments from true perceptions. The Buddhist seems to say that a judgment is false because (1) it is expressible in words (2) it arises from memory and not sense-object contact (3) it arises from overly complicated conditions (4) it is dissimilar to the nonpropositional awareness which precedes it (5) it grasps an object already known by nonpropositional awareness (6) it mistakes one thing for another, or superimposes identity on two different objects (7) it refers to a universal or a relation.

71. As for (1), Jayanta holds, as we have seen, that the same object which is grasped by nonpropositional perception is also grasped by propositional perception. Furthermore, universals are grasped by nonpropositional perceptions also. Thus both propositional judgments, expressible in words, and nonpropositional ones, not expressible, are capable of being true or false. (2) The presence of memory among the conditions does not falsify the judgment. The sense organ continues to function despite the intervention of memory. (3) This reason is unworthy of a philosopher! (4) The difference alleged by the Buddhist between the nonpropositional awareness and the propositional perception which follows is that the latter *judges* where the former does not. But, says Jayanta, only people judge, not judgments; and anyway, why should it matter? (5) Novelty does not constitute a criterion of truth. (6) And we do not identify different objects—we are quite aware that a universal and a particular are different. When we say "this is Devadatta" we do not suppose that "this" is "Devadatta," but rather that the object spoken of is identical with the referent of "Devadatta."

72. Jayanta reviews several understandings of nonpropositional perception, including the Buddhist's. He argues that since there are so many conflicting accounts of it, one is free to decide for himself how to interpret it. And from this standpoint there is little to recommend the Buddhist idea that nonpropositional perception is one which grasps a pure particular. Such a perception leaves unexplained why it is followed by a propositional judgment classifying the particular under one universal rather than another. The same difficulty haunts another theory about nonpropositional perception, namely that it

grasps the highest genus, Being. Or the Grammarian thesis that nonpropositional perception grasps words : this is refuted by pointing to the absurdity of grasping a word without knowing its meaning.

73. In fact it is the same object which is cognized by both non-propositional and propositional perception, the difference being that the latter cognizes the object as denoted by a word, this relation being supplied by memory.

74. As for the term "nonillusory" in the Buddhist's definition, it is unnecessary since "free from determination by imagination" excludes all such illusions. Thus the definition fails.

75. (Mīmāṃsā definition of perception) (E93-100; T3-19 [Oct. 1953]). The views of Varṣagaṇa, Jaimini, and the Vṛttikāra are mentioned and rejected as being too wide or too narrow. The *Mīmāṃsāsūtra* which appears to define perception is taken by Kumārila and others not to do so; rather, they say, it explains why perception cannot grasp *dharma*. This is because there is no yogic perception. But, says Jayanta, if Kumārila denies the existence of yogic perception he cannot very well use it as a term in an inference to show that perception cannot grasp *dharma*. Furthermore, if no one can have yogic knowledge how did you, Kumārila, come by your knowledge through study of the Vedas? More positively, since cats can see in the dark, why can't sages see *dharma* ? And since their experience of *dharma* is at least as vivid as illusions, such experience should be accepted as a species of supernormal perception.

76. As a corollary to the Nyāya thesis of omniscience in sages, which the Mīmāṃsakas reject, Jayanta also attends to the kind of knowledge called *prātibha*—intuition, or foresight. He says this is a kind of direct, valid knowledge, i.e., perception. *Objection*: But this judgment is not born of sense-object contact, since its object is not present at the time of judgment but only comes to be present later on. *Answer*: However, the object with the properties it will have in the future is presented now as a possibility. E.g., the brother who will come home for dinner is known directly now as a possible returnee. *Objector*: Which sense is involved in the contact? *Answer*: The internal organ. *Objector*: Then the blind can see! *Answer*: No, the internal organ only grasps what has been presented before by external sense organs; in this case, the brother is grasped.

77. But what exactly is omniscience ? Is it one or many acts of yogic perception ? Jayanta thinks it is one act. *Objection*: But how can one judgment grasp many incompatible objects ? *Answer*: Well, a picture, containing blue and its complement, may be grasped in one perception, so why not the whole universe?

78. (The Sāṃkhya definition of perception) (E100; T19-20) [Oct. 1953]). Īśvarakṛṣṇa defines perception as a clear and distinct image of its object. But this overextends to inference. Rāja's emendation that the definition means that the object is in front of the percipient does not exclude inference either.[11]

VI. INFERENCE

79. (Vs. Buddhists on validity of inference) (E100-08); T107-221 [Nov. 1953]) and [Dec. 1953]). Jayanta begins by giving a general discussion of inference. In his account, there are 5 characteristic features of the *hetu* in a valid inference. (1) The *h* must overlap the *p*. (2) The *h* must overlap the *sp*. (3) The absence of *h* must overlap the *vp*. (4) The *h* must have an unsublated content. (5) The *h* must not be counterbalanced by an opposing *h*. All fallacies of the *hetu* can be classified as violating one or more of the above requirements.

80. Some Buddhists argue instead that the first 3 requirements are sufficient, since satisfaction of requirements (4) and (5) is necessitated by satisfaction of the first three. The fourth requirement concerning unsublated content means that the *hetu* must not be contradicted by perception or verbal testimony. E.g., "fire is not hot, because it is a product"—here we know from perception that some products are hot, and this violates (4), according to Nyāya. But, says the Buddhist, such an inference already violates (1). The reason is this : a proper *p* must be such that it can overlap the *h* and the *s*, but this *p*, namely a fire which is not hot, is not such a *p*; therefore, the *h* cannot overlap it, which violates (1). Furthermore, it violates (2) as well, since not all *sp* overlaps ; fire is an *sp*, and it does not overlap *h*.

81. Jayanta's answer : As to the second point, surely it is absurd to require complete inclusion of all *sp* including the *p* to establish pervasion. If that were required, inference would have no point. As for the first argument, the Buddhist takes *p* as being already endowed with *s*—a fire which is not hot—whereas to properly understand *p* we must take it as in itself neutral between the *s* and its negation.

82. The Buddhists claim that pervasion is analyzable into a necessary relation of either identity or causality. Jayanta finds this obscure and eventually faulty. For one thing, if *h* is identical with *s* then we cannot apprehend the one without also apprehending the other. Then inference has no point. If to give inference point we

tamper with the kind of identity involved here, the judgment becomes nonsymmetrical, and identity is a symmetrical relation. And in any case, once a nonsymmetrical relation of pervasion is admitted—even if it be perversely dubbed "identity"—the Naiyāyika can rest satisfied. As for inference based on causal relations, Jayanta avers that the Buddhist cannot admit causal relations, since on the assumption of momentariness nothing lasts long enough to be a cause. He should rather talk about concomitance, which is precisely the way the Naiyāyika wishes to speak too.

83. The Buddhist replies to this last by reminding us that Kaṇāda speaks of *śeṣavat* inferences as from effect to cause, but Jayanta explains that Kaṇāda was merely offering this as an example of inference and not as definitive. The *śeṣavat* inference is intended to illustrate concomitance, not causality.

84. (Vs. Cārvākas in defense of validity of inference) (E108-12; T221-27 [Dec. 1953]). A collection of complaints against inference's validity are listed. For example : (1) Smoke belongs to fire but not to the mountain; therefore *p* must be understood in a secondary meaning, and likewise "inference" itself must as a result be understood in a secondary meaning. (2) Pervasion cannot relate a particular fire with smoke. Pervasion can only relate general things, like fire, to other general things—but fire in general does not exist on any particular mountain.

85. Jayanta answers that these arguments, though they might bring into question someone's account of inference, cannot prove inference's invalidity, since everyone accepts inference in order to get along in the world. As for the particular objections cited, the Cārvāka fails to understand that the pervasion relation relates universals and not particulars—smokiness and fieriness, not smokes and fires.

86. (Knowledge of pervasion) (E112-13; T227-31 [Dec. 1953]). It is common Nyāya doctrine that a type of extraordinary perception called *sāmānyalakṣaṇa* must be introduced to explain our knowledge of the positive concomitance between all the particular smokes and fires. In addition, some Naiyāyikas say that another kind of extraordinary perception must be postulated to account for knowledge of negative concomitance, which is equally important. In this they are opposed by the Mīmāṃsakas, who think that negative concomitance need not come into the picture; positive concomitance is sufficient. But their view has been refuted above (cf. section 27) since presumption has been shown to be a kind of inference and involves negative concomitance. However, Jayanta agrees that the additional kind of extraordinary perception is unnecessary; the grasp-

ing of the negative concomitance, as well as of the positive concomitance, is done by the internal organ.

87. (Explanation of *sūtra* I.1.5) (E113-25; T234 [Dec. 1953] T128 [Feb. 1954]). Jayanta cleverly interprets the defining portion of the *sūtra*, namely "follows on perception," to mean "follows on two perceptions of an appropriate sort"—namely, on (1) the perception of universal concomitance between *h* and *s*, and (2) the perception of *pakṣadharmatā*, the presence of the *h* in the *p*.

88. The discussion moves on to the 3 kinds of inference distinguished in the *sūtras*. (1) *Pūrvavat*. There is a lengthy discussion as to whether this means inference from cause to effect or from effect to cause. Jayanta and Kumārila agree that the former is correct. (2) *Śeṣavat*. The discussion here follows familiar lines. (3) *Sāmānyatodṛṣṭa*. Vātsyāyana's example of this type of inference, from difference in location to the fact of a thing's having moved, is rejected on the ground that the relation is the reverse: we infer difference in location from motion, so that this is an example of *śeṣavat*. In place of Vātsyāyana's example Jayanta gives as an example of *sāmānyatodṛṣṭa* the inference to a wood-apple's taste from its color and other qualities. He apparently agrees with Uddyotakara that any noncausal inference belongs here.

89. Jayanta reviews the second type of explanation offered by Vātsyāyana (cf. p. 242). In connection with *sāmānyatodṛṣṭa* there is a discussion with the Mīmāṃsakas as to whether its object is necessarily beyond the senses or not. The Mīmāṃsakas say not. They give as an example the inference to Devadatta's motion when it has not been seen. Another example is an inference about causal efficacy. Jayanta rejects these examples.

90. (Time and space) (E123-28); T128-137 [Feb. 1954]). All the 3 times (past, present, and future) contain inferrable objects. But some say that time cannot itself be proved, and therefore the above statement is senseless. We cannot infer time from ideas such as "slow," "quick", etc.; these only establish the existence of events, not of time. If time is held to be partless, furthermore, how can we speak of past, present, and future? An answer to this is that time is perceived as a qualifying adjunct of objects, e.g., in judgments expressed with adverbs such as "simultaneously," "quickly," etc. *Objection*: But time is not colored, and so is not perceptible. *Answer*: Color is not colored, but it is perceptible. Authorities such as Praśastadeva[12] are mistaken in limiting perceptibility to colored substances and their qualities. Place also is perceptible.

91. However, others think that time is inferred, not perceived.

The inference is from our ideas of slowness, etc., to their origin. *Objection*: But as said above, these properties only prove that there are objects or events, not time. For example, they show that the objects are qualified by vibrating activity.

Answer: And what are the vibrating activities qualified by? We say that activities are fast and slow too.

92. Time is one, and does not have three parts. But by thinking of time as associated with certain motions, we arrive at the conventional divisions of time into past, present, and future.

VII. COMPARISON

93. (E128-36; T137-251 [Feb. 1954] and [March1954]). The interpretation of Vātsyāyana is reviewed and defended. Then an opinion of "contemporaries" (*adyatanas*) is given, that comparison is the perception of the resemblance between *gavaya* and cow on the basis of verbal knowledge, and that its result (*upamiti*) is the knowledge of the denotative relation between the word *gavaya* and the animal in question. Jayanta refutes this by reminding us that perception cannot very well give us knowledge of this relation when the object is not in view.

94. The Mīmāṃsakas think that comparison is the instrument which produces the knowledge that the cow is similar to the *gavaya*. They also argue that memory of the similarity between *gavaya* and cow is impossible since the *gavaya* has not yet been seen at the time the Naiyāyika wants to have us experience the similarity we later remember. The Naiyāyika says that the similarity is a result of verbal knowledge, and this is what is remembered. But he admits that the *gavaya* which figures in these judgments is an indistinctly known one; only later, when we see one, do we have a distinct knowledge of *gavaya*. There is a discussion of the nature of similarity here. Jayanta contends that similarity can be known even when the relata are not distinctly known; the Mīmāṃsaka denies it.

VIII. VERBAL TESTIMONY

95. (Defended as *pramāṇa*) (E137-46; T251-to end [March 1954]). Again Jayanta reminds us of his idea that the qualifying adjectives in the definition of perception are to be understood to apply to all four instruments. He discusses the words "teaching" and "reliable person" in *sūtra* I.1.7, incidentally refuting *sphoṭavāda* and affirming that only sounds which denote are words. On "reliable person" he cites Vātsyāyana with approval.

96. Now an objector argues that verbal authority is merely inference. Several points of similarity between them are cited, and the differences are held to be minor. In reply, Jayanta stresses some of the differences. E.g., we must have specific sorts of previous knowledge to have an inference, but in verbal authority all we have to do is to listen. Again, inference issues in whole propositions while verbal authority applies at the level of individual words. *Objection*: But individual words are understood to be laconic expressions of sentences. *Answer*: No, a sentence is understood to express a complete thought, while a word expresses an incomplete one. Another objector tries to argue that our knowledge of the denotation of a cow by the word "cow" is an inference from the animal's possession of *cowness*. Jayanta's answer is that the conclusion of this supposed inference is unclear : is it that a word has the capacity of conveying a meaning or that the word does in fact convey that meaning? Neither can be inferred from a property of the object *cow*.

97. Now a skeptic is introduced who doubts the validity of scripture. He says its authorship is uncertain or nonexistent, it contains contradictions, it is repetitious, it does not speak of the real world. Take the last first. A sentence like "a hundred elephants stand on the end of one finger" does not speak of the real world, but only of an imaginary state of affairs. Even if this is uttered by a reliable person it produces illusion. Therefore words, even when uttered by reliable persons, produce illusion. The answer to this, says Jayanta, is that no reliable person would utter such a sentence except in fun or with some secondary meaning. Unreliable people, on the other hand, do produce illusory judgments by their words. So it is the speaker, not the words, that is the source of error.

98. (Self-validity (*svataḥprāmāṇya*) vs. validation by another judgment (*parataḥprāmāṇya*)) (E146-60; T16-21 [April 1954] and [June 1954]). This discussion arises from the Mīmāṃsā theory that scripture is valid intrinsically, regardless of its source. To approach this, Jayanta decides to review the whole question of intrinsic validity vs. extrinsic, a question relating to all knowledge and therefore to verbal authority in particular.

99. Four views are outlined. (1) Judgments are known to be valid or invalid by inspection, i.e., intrinsically. (2) Both validity and invalidity depend on testing a judgment against some external standard or source. (3) Invalidity is intrinsically justified, but validity is extrinsic. (4) Validity intrinsic, invalidity extrinsic.

100. The defects of the first theory are obvious. In mistaking a shell for silver, does the judgment carry its validity or invalidity in

it intrinsically? If so, which? This also defeats view (3), for if the invalidity of a judgment such as "this is silver" when confronted with a shell is intrinsic, then why do we reach for the object? Who reaches for illusory silver when they know it to be such?

101. The Mīmāṃsā theory, namely (4), is now presented at some length. What is the extrinsic condition on which the validity of a judgment is supposed to depend? Not the conditions which produce it—they are responsible for the occurrence of the judgment but they cannot be also the answer to the question "what is responsible for the validity of the judgment," since this question would not arise at all unless those conditions operated. It is not some extrinsic "good quality." Truth is merely due to the normal functioning of the senses, not to some superior or abnormal functioning. Knowledge illuminates its object naturally; it is only when the senses are defective that error arises. Or perhaps it will be said that the extrinsic condition is the absence of a contradictory judgment. But then the judgment "this is shell" is not true as long as we are under the erroneous impression that the object is a piece of silver. Or perhaps it will be said that the judgment must agree with another judgment to be valid. But then how do we know the other judgment is itself valid?

102. Furthermore, in order to explain why we act to grasp the object of a judgment we must accept the thesis that validity is intrinsic, so the Mīmāṃsaka argues. For we do not act to grasp an object unless we are convinced it is there and we are disappointed when we grasp for it and fail to find it. Therefore it is necessary to assume that a judgment is intrinsically valid but extrinsically invalid—that a definite judgment, as opposed to doubt, produces activity in us to obtain the object, and that the thwarting of this activity due to the erroneousness of the judgment is not due to the judgment itself but to extrinsic conditions.

103. Finally, says Kumārila, the Vedas are intrinsically valid. They are incapable of invalidity since they have no author. The invalidity of scriptural statements could only be maintained if someone produced them who had some defect in himself which infected his statements. But since the Vedas have no author, they are infallible.

104. Jayanta answers these arguments. He first asks which instrument of knowledge grasps the validity of a judgment—perception or inference? Not perception; we do not perceive truth, since there is no sense-object contact, and anyway no such judgment as "I see (hear, etc.) the truth of the judgment 'this is blue' " is ever entertained. Nor can inference prove validity, since we know on

infallible mark to reason from to truth, except that truth is always a property of a judgment. But not all judgments are true! Therefore neither perception nor inference proves the intrinsic validity of judgments, and thus it must be extrinsic.

105. The Mīmāṃsaka's argument above (section 101), that the validity of a judgment is due to the absence of a contradictory judgment, is not convincing, says Jayanta. It is not the case that we must be convinced of the truth of a judgment in order to act to obtain its object. We must believe it to be more probable than not, to be sure, but we need not be absolutely certain. The Mīmāṃsaka may press us on this point, and we admit that it is possible to think one is certain where one is actually in doubt. After all, doubt is a kind of awareness, produced by conditions and capable of going wrong.

106. Jayanta challenges the Mīmāṃsaka to produce a mark by which we can distinguish valid from invalid judgments generally. What Jayanta suggests is that every judgment, when it first arises, arises as a doubt (whether we think so or not), and only subsequently, when it becomes confirmed by appeal to extrinsic conditions, do we know it to be true.

107. Here Jayanta qualifies his conclusion (section 105) that judgments of probability suffice to inspire action towards the object. He now says that this applies only to ordinary objects. With respect to supersensible objects we must have certainty before we are willing to act.

108. Now the opponent will say that the theory of extrinsic validity involves an infinite regress. The knowledge of an object is to be tested by reaching for it. But when one reaches for it, and either judges that he has obtained it or failed to, the resulting judgment (whichever it is) needs a further judgment to verify it, etc. Jayanta's answer is that no one needs a further judgment to verify the judgment that an object has been obtained. E.g., one may be in doubt as to whether the thing in front of him is a lake as long as he is out of it, but once in it there can be no doubt. The reason there can be no doubt is that the experience of obtaining water when in a lake is an instance of a universal regularity which has never failed us in the past. Whenever we have gotten in something watery we have obtained water.

109. A "proud philosopher" holds that the term "self-evident" applies to judgments about objects of a kind we have tried to obtain before, while the word "extrinsic" applies to objects we have not tried to obtain before. Jayanta points out that this philosopher has not reflected that in everyday life we are continually seeking objects and

it is these everyday verifications which validate a judgment; such judgments cannot be called "self-evident."

101. (Vs. the Prābhākara theory of illusion) (E161-72; T222 [June 1954], T155 [Sept. 1954]). The Prābhākaras attempt to salvage Mīmāṃsā theory by denying outright that a judgment is ever contradicted. What exactly *is* contradiction? The destruction of one judgment by a succeeding one? That is too wide. The non-coexistence of two properties in the same locus? That, too, is too wide. Or perhaps it is the wiping out of the trace left by the contradicted judgment? Too wide.

111. Then are there no illusions at all? No, say the Prābhākaras, there are not. Then is the judgment that this shell is a piece of silver true? The answer to this is that there is no such judgment as "this is a piece of silver." There are two judgments here, one of perception and the other of memory, and both are true. What produces an "error" is that the memory is not appreciated to be what it is, and is not distinguished from the perception. This Prābhākara theory is called *akhyātivāda* because of this nondetection of difference (*akhyāti*).

112. The Prābhākarite goes on to criticize other theories of error. The Naiyāyika, e.g., thinks that silver which occupies another place and time stimulates the senses to produce awareness of silver here and now. But we see a piece of silver here and now, and it is not that piece of silver which is elsewhere and "elsewhen"; therefore, this account is inadequate. Furthermore, what place and time are presented with the (erroneous) piece of silver? Not the place-time where the silver really resides, for then the judgment would not be erroneous; and not any other nonexistent place-time, since a nonexistent place-time cannot stimulate the sense. Well, then, if neither the silver or the place-time are present, what stimulates the senses?

113. Or perhaps the Naiyāyika will have it that it is the shell which stimulates the senses. Then the problem will be to connect this perception with the memory of silver, which has nothing to do with it. The only way to resolve this problem is to suppose that the shell conceals its own form and presents a form not its own. But Naiyāyikas deny that this happens.

114. As for the theory of *asatkhyāti*, that an unreal object is presented in error, this is refuted by pointing out that no one experiences an absolutely unreal object like a sky-lotus. If the Buddhist replies that what produces the experience is the trace of a real object, he must be asked how does such a trace produce an experience of an unreal object? And why does the trace produce a silver-experience,

say, rather than a sky-lotus experience? The trace theory will not hold water.

115. Finally, the theory of *ātmakhyāti*, where the knower and the known are both consciousness, should lead to our judging "I am silver" rather than "this is silver." Anyway, if an internal object is presented as external, this means the view under consideration is merely another version of the Naiyāyika's *anyathākhyāti* theory, and fails for the reasons outlined above.

116. The Prābhākara insists that error is entirely negative. It is failure to discriminate, but no positive identification takes place, since that would lead to the Naiyāyika's view. What, then, asks the critic, is the character of the judgment with which we detect error? *Answer*: It is the discrimination of what had been before undiscriminated. (b) What about dreams? *Answer*: Here, as before, the objects of memory are not discriminated as such. But not all errors are alike, and the Prābhākara is not committed to precisely the same analysis of every false judgment.

117. Jayanta now sets out to refute the Prābhākara theory. For one thing, the Prābhākara insists that "this is silver" is not one judgment but two. However, it clearly is one. Again, just how does silver present itself to us—as given by memory, or as given by perception? If by memory, then we should have the experience of remembering that we had seen the object before—but we do not. And if it is given by perception, then the Prābhākara has given up his position.

118. Again, what is denoted by "this" in "this is silver"? The Prābhākara must in consistency answer that it is an indeterminate locus, where shell is not perceived and silver is remembered. But surely we would not identify silver with an indeterminate "this" unless we were under the impression that they shared some property. And now the Prābhākara thesis fails to differ from Jayanta's own.

119. However, the Prābhākara may reply that there is still a difference, and that is that while in Jayanta's view silver appears to us to be perceived, on the Prābhākara view it does not. Jayanta points out that the Prābhākara view is borrowed from Dharmakīrti. It is defective, since we do not reach for objects unless we think we perceive them.

120. The Prābhākara analysis of the judgment which discovers error is inadequate also. "This is not silver" by no means makes an undiscriminated judgment into a discriminated one—nobody would say that.

121. As for dreams, the Naiyāyika is better able to explain

them than is the Prābhākara. The Prābhākara is unable to explain why one remembers silver when he sees shell; he is even worse off in the case of dreams, where there is nothing real presented. The Naiyāyika, on the other hand, explains dreams as the reflections of real objects seen before and elsewhere. The example of the double-moon illusion does not help the Prābhākara. The Prābhākara idea is that true judgments of memory are sometimes not recognized to be such, and that such "mutilated" memories constitute the subjects of our dreams. To show that such mutilated memories occur, he cites the example of seeing two moons. His explanation of this illusion is as follows. The number two rightly belongs to the eye-rays and is mistakenly transferred to their object, the moon. Thus the illusion is due to failure to discriminate a judgment of memory (that there are two eye-rays) from a judgment of perception (of the single moon) —both judgments being correct in themselves. Jayanta's answer is that this judgment of memory, that there are two eye-rays, is impossible, since we cannot perceive eye-rays and so cannot remember and transfer the memory of their number.

122. The Prābhākaras challenged us to explain contradiction (section 110). We can do that. Given a judgment *p*, which attributed an object to a locus in space and time, the contradictory of it, *not-p*, is the judgment which denies that object's occupying that locus.

123. (Vs. the view of some other Mīmāṃsakas) (E172-73; T155-58 [Sept. 1954]). Another school of Mīmāṃsā holds that in error we confront an extraordinary (*alaukika*) piece of silver. It is extraordinary because it is not a useful object to confront. Thus instead of saying "this is not silver after all," we ought to say "this is not ordinary silver; it is extraordinary silver!" But, replies Jayanta, this is absurd. When we discover the error we do not perceive any silver at all, and so can hardly perceive extraordinary silver. Furthermore, if the criterion of extraordinariness is being framed in a negative judgment then the view is wrong, for we sometimes make negative judgments about ordinary, i.e., veridical objects.

124. (Validity of verbal authority extrinsic) (E173-75; T158-61 [Sept. 1954]). Since words denote objects only because of convention and not intrinsically, the truth of judgments gained by verbal authority depends entirely on the trustworthiness of the speaker. It is possible to identify the characteristics which indicate trustworthiness: they include compassion and other such virtues. Now the Mīmāṃsakas think that these "good qualities" are merely the absence of defects, but that absence of defects does not establish the extrinsic nature of the validity of judgments deriving from verbal authority.

Thus, they say, the Vedas are authoritative and valid intrinsically, because of their lack of authorship.

If so, Jayanta claims, some Vedic passages which are clearly false must be held to be true. The Mīmāṃsaka is made to answer that in such cases the texts have authors and those authors have defects. Jayanta points out that the argument is circular : the falsity of the statement is being used as a criterion for its having an author, but likewise the fact of its having an author is used as a criterion for its being false

125. (Existence of God) (E175-88; T161-83 [Sept. 1954] and [Dec. 1954]). If the Vedas do have an author, the author must be God. Jayanta now presents opponents' arguments designed to refute the existence of God.

126. (1) God is not perceived. (2) And therefore He cannot be inferred. (3) God's "works," e.g., hills, are not products, since they are unlike pots, etc., which are the products of man's handiwork. (4) In any case, not all products are products of man's handiwork, and therefore not all products are products of God's handiwork. (5) If God were inferred by analogy, then He would be like a potter. But a potter has a body, moves his limbs, is not omniscient, etc., while God is held to have the opposite qualities. (6) If God has a body, who creates it? Not Himself, obviously, and to postulate another God to create the first God's body is to generate infinite regress. (7) Does He create by bodily movement or by mere willing? Not by bodily movements, since it would take too long. Not by mere willing, as how could willing affect the courses of atoms? (8) Does God act from motive or not? If so, God is not perfectly blissful. If not, then He behaves like an insane person. Or perhaps He creates out of compassion? But then why did He create so much sorrow? (9) Since merit and demerit is sufficient to guide destiny, God is not needed to command them. (10) And if He *is* brought in to guide merit and demerit, He becomes dependent on them. (11) If it is held that God creates for sport (*līlā*), then it must be pointed out that in between cycles there is no sport and thus no reason for creation; nor should a good God be edified by this tawdry spectacle of a world. (12) If God is made absolutely responsible for the state of the world (i.e., if the "law of *karma*" is abandoned) then (a) God's goodness must be rejected, (b) the Vedic injunctions become pointless, (c) the hypothesis of liberation must be abandoned.

127. Jayanta now answers these arguments. He holds that God can be inferred, and that the mark by which this inference proceeds is the fact that the world is an effect. The inference, then, is

this : God exists, because He produces an effect of a type whose existence presupposes the existence of someone who knows the process and motive of its production, like a jar.

128. The arguments against the world's being an effect might stem from a Cārvāka, a Buddhist, or a Mīmāṃsaka, but in each case their espousal of such arguments leads them into inconsistency. The Cārvāka believes that the Vedas are produced by men. The Mīmāṃsakas believe that mountains are effects since they hold that they are destructible. The Buddhists, holding that everything is transitory, must admit that everything is an effect.

129. But what is being proposed as the mark of "being an effect"? Jayanta answers : having parts. This is challenged by the Buddhist on the ground that it involves assumption of universal connections. Jayanta answers that though the Buddhist may deny universals he replaces them by absences of absences (*apoha*) and this will serve as well at this point. In answer to argument (4) in section 126 Jayanta argues that the examples given by the opponent of things which are not products of man's handiwork are themselves uncertain, being subjects of other inferences, and therefore not proper counterexamples. There is an interesting discussion of this claim, the opponent asking how we can ever give counterexamples if they are to be ruled out in this fashion. Jayanta firmly reiterates that the disputing parties must agree about the absence of the *sādhya* from a counterexample. If the parties dispute over the presence or absence of the *sādhya* from a putative counterexample, then it cannot function as a counterexample, but must itself be argued over. Whether the earth, or big trees, for example, are or are not created is doubtful. But they are effects, and we infer from analogy with other effects that therefore they must have a creator. Therefore the opponent cannot use them as counterexamples.

130. There is a brief discussion of other proposed proofs for God's existence. They are criticized in some cases, accepted as authority in others.

131. Then the eternality of God's attributes is proved. How can God's will be eternal? If it is, its results should be eternal also, says an objector. Jayanta answers that though God's will is eternal it produces temporary effects by its connection with noneternal objects.

132. As for objections (5)—(7) in section 126, the ones about God's body, Jayanta holds that God is incorporeal. God can will physical results just as we will our bodies to move. As for (8), about God's motives, the objection that God should not produce sorrow if he is compassionate is answered by holding that God must provide

a place (Hell) for people whose *karma* is bad to correct their ways and seek salvation anew. As for the time between cycles, that is produced by God to give the selves periodic rest from their labors.

133. Kumārila's view, that the merit and demerit of the selves produces all effects and that God is unnecessary, is met thus : such a view cannot explain the production of many natural objects. A mountain is a pleasure to *X* and a problem to *Y*—surely their *karmas* cannot cooperate in producing it ! In fact, individuals never have common aims. When big buildings are built, it is one individual who commands and others obey; to try to build a big building by democratic institutions would be crazy. Likewise the world needs a masterbuilder. For the same reason, there is only one God.

134. (Sounds are noneternal) (E188-200; T183-220 [Dec. 1954] and [March 1955]). The Mīmāṃsakas argue that sound is eternal. But objections to this are as follows. (1) A sound is an effect because it is regularly preceded by effort. (2) A sound is destructible because it is not heard always. (3) We use expressions like "producing sounds," etc., which show it is an effect. (4) Sounds evolve from other sounds. (5) Variations in the cause of a sound produce variations in the sound, which shows it is an effect.

135. The Mīmāṃsā answer to these points. (1) Sounds are not produced, they are manifested. Effort precedes this manifestation, but is not a cause. (2) The manifestation of words requires formation in the mouth, and as the mouth changes the word is no longer heard; but this does not show that sound is produced. (3) "Produce" is ambiguous in ordinary usage; it may mean production properly socalled, or it may mean manifestation. (4) What you call the "evolution" of a sound from another is in fact the substitution of one sound for another. (5) And it is the volume of a sound, not the sound itself, which increases or decreases due to varying conditions.

136. Now the Mīmāṃsaka offers an argument based on presumption (*arthāpatti*). If a sound perishes, then it cannot communicate its meaning, for it takes some time for men to make out the meanings of words. The Naiyāyika may reply that it is not the sound but its universal property which persists. This is not tenable, for such a universal belongs both to sounds which convey meanings and to sounds which do not. And anyway, there is no universal "*g*"*-ness* residing in "g" s, for there is only one "g"; the appearance of many "g"s is due to its association with other letters in different combinations.

137. Now since there is only one sound of a given kind, when we recognize a sound as "g" it follows that we are literally re-cogniz-

ing the same "g," not discovering a particular "g" which falls under a universal we have seen instances of before.

138. Jayanta refutes this. Letters are produced, not manifested. First, if letter-sounds are eternal and omnipresent, why don't we hear them everywhere and all the time? The Mīmāṃsaka may answer that there are different *dhvanis*—bits of air in the body—which come into contact with a part of the mouth and thus manifestation of one sound rather than another takes place there. But, says Jayanta, this does not help explain our auditory experiences—either we should hear nothing or everything, particularly since the Mīmāṃsaka thinks that the organ of hearing is the all-pervading, partless *ākāśa*. Thus we must hold that words and letters are produced, not manifested.

139. The Mīmāṃsaka retorts. The ear, like the mouth, is capable of discriminating sounds which reach one part rather than another. And we do not hold that the sky per se is the auditory organ; rather it is a circumscribed portion of *ākāśa*, as the Naiyāyika holds. Letters come to be thought of as particulars by taking on properties of the *dhvani* in which they are manifested.

140. Furthermore, the manifestation theory is simpler than that of production. The Mīmāṃsaka spoofs the Vaiśeṣika account of sounds creating other sounds in rippling waves throughout the atmosphere. Sāṃkhyas hold that the auditory organ goes out to grasp sounds and takes on their forms just as the visual organ does. But then it should also take on the forms of the nearby sounds that it has to pass through to get to the far-off ones. The Jainas hold that a sound is a whole made up of particles, and that this body moves from the place of origin to the ear. But such constituents of sounds are not seen and are not combined by anything; such loose conglomerations, not being very heavy, ought to be blown around considerably en route, or demolished completely by trees, etc. In comparison with these the Mīmāṃsā theory has obvious merits.

141. Now Jayanta sets out to refute this argument. He sees two lines of argument used by the Mīmāṃsaka: one from recognition, the other from presumption. But both arguments fail if the hypothesis that *"g"-ness* exists can be established—for then both recognition and the possibility of communication can be adequately explained without recourse to the Mīmāṃsā account. Therefore Jayanta proposes to prove the existence of such a universal property.

142. Consider the word *gagana*. According to the Mīmāṃsaka theory of manifestation, are there one or two "g' s here? If only one, then on what basis do we distinguish between "g" and "v", say?

All letters become one in this account. But if the Mīmāṃsaka says there are two "g"s in "*gagana*," then again on what basis? The same part of the mouth, and the same *dhvani*, manifest the same kind of sound. Thus there is only one sound, not two. The Mīmāṃsaka, thinks Jayanta, is incapable of explaining the difference between the two "g"s. And once it is admitted that there are two different individuals sharing a common character, "*g*"-*ness* has been admitted.

143. This leads to a discussion of identity and difference. The Mīmāṃsaka says that *a* and *b* are different if we see a differentiating feature, but not otherwise. Jayanta denies this principle. E.g., in movements there are subtle changes from one moment to the next, and the watcher senses there is difference without seeing the differentiating characteristics of each moment and contrasting them with one another. In any case, the Mīmāṃsaka seems willing to admit that if these two "g"s are different they must have differentiating features, and vice versa. Very well, let us say they have differentiating features: the minute differences in the way they are pronounced, say. But this makes Jayanta's point : There are different "g"s but they share the universal property "*g*"-*ness*.

144. The only way left for the Mīmāṃsaka, according to Jayanta, is to deny that there are classes of things which differ amongst themselves. But this is absurd. It issues either in a Buddhistic sort of theory or in monism.

145. There follows a discussion of recognition, intended to show that only on the hypothesis of universals can the phenomenon be adequately explained. The exact account of recognition does not matter, thinks Jayanta; whatever it may be, either universals or similarity must be brought in to complete the account, and the Buddhistic theory of similarity—the *apoha* theory—reduces to the theory of universals, as suggested in section 129 in a slightly different connection.

146. Jayanta now reverts to the Mīmāṃsaka's manifestation theory and refutes it along similar lines to what was given before. The theory that the organ of hearing changes like the mouth's *dhvanis* from sound to sound, a theory attributed to Bhartṛmitra, is scoffed at. Kumārila also rejected it. Kumārila's own solution is to make the auditory organ out to be *dik* rather than *ākāśa*. But *dik*—direction—performs different functions, and if the functions are transferred the point becomes a verbal one.

147. Jayanta asks : What accounts for the differences in intensity of sounds. Is it the letter's changing properties ? If the Mīmāṃsaka agrees, he capitulates to Nyāya. Or is it the properties of the air which are (incorrectly) attributed to the letters ? But this will

not do either, since the air is sensed not by hearing but by touch. Or else, as Vaiśeṣikas hold, it is not sensed at all but inferred. Or perhaps the Mīmāṃsaka will say that the intensity belongs to our consciousness and not to its objects. But then, since the Mīmāṃsaka holds that consciousness is not sensed, we cannot sense the changes in intensity!

148. There are some remarks about the physics of audition, to show the superiority of the Nyāya view over that of Mīmāṃsā. This is to answer the argument that the Mīmāṃsā view is simpler than that of the Vaiśeṣika. Jayanta tries to show that Kaṇāda had a better understanding of the way the world is than Kumārila. He explains carefully and at some length the theory that one sound produces another, forming waves of sounds.

149. Is sound a quality? Yes, says Jayanta. No, says the Mīmāṃsaka. The argument given by Jayanta is that sound must be either a substance, a quality, or a motion. By eliminating the other two we conclude it is a quality. It is not a substance, since substances are caused by many, not one, substance and a sound can be caused by one substance. It is not a motion, since one sound may produce another, and one motion cannot produce another motion. Jayanta is careful throughout this passage to discriminate good reasons from the bad ones that he considers some Naiyāyikas to have given.

150. (E213-18) Mīmāṃsā holds that the Vedas are not manmade. Jayanta produces reasons for doubting this theory. There must be an instrument of knowledge supporting claims, e.g., of God's authorship of the Vedas, and Jayanta points out that no one has seen the Vedas being composed; thus perception is not a proper instrument. If one seeks to prove by inference that the Vedas have no author, say, by inferring from the tradition of God's authorship to the absence of human authorship, Jayanta constructs a rival inference which is equally valid but contrary to this one and suggests that neither is correct since they are equivalent in force.

The opponent may claim that the Vedas are of natural origin while other products are artificial. Jayanta questions the basis on which the opponent might propose to make this distinction. Why aren't cloths sometimes of natural origin if words sometimes are? Why are the Vedas of natural origin and other texts not? If the opponent seeks to show that the Vedas possess excellences which distinguish them from other literary works, Jayanta replies that this is no reason for denying their authorship, and furthermore, he adds, compositions by such as Kalidāsa and Bāṇa have excellences of their own.

The opponent might argue that the Vedas are natural in origin since they appear at the beginning of each cycle. Jayanta answers that the opponent cannot prove the beginninglessness and authorlessness of the Vedas through that, for he has no way of showing that a different work does not come into existence at the beginning of each cycle.

In the Vedas it actually says that Prajāpati created the Vedas. Now the Mīmāṃsaka is presumably willing to accept that, e.g., Vyāsa wrote the Mahābhārata since the epic says so; the parallel inference in the case of the Vedas is sufficient to show that they were created by God.

The Mīmāṃsaka finally turns and challenges Jayanta to provide a proof of an author of the Vedas, which Jayanta happily does by presenting the stock Nyāya inference by analogy from the fact that a cloth, a pot, etc. have a maker, being composite things, to the Vedas having a maker, being a composite thing.

151. (E218-19) Is He who creates the Vedas the same as He who creates the world? Yes, since they are created for human beings who inhabit the world, so that those beings may improve themselves by the study of the texts. Only a Creator who is all-knowing and understands the working of this mechanism because He created the world and the bodies in it would have the requisite knowledge and capacity to create the texts whose study has these results.

152. (E220-22) The Mīmāṃsaka's view about the meaning of words is that there is a natural relationship between a word and its meaning such that it needs no self to establish it. However, they do admit that the sages who set out the Vedas in words are necessary for the conveying of these naturally established meanings. Jayanta answers that, so far as the evidence goes, wherever there is a meaningful expression there is a man responsible for it; it is gratuitous to postulate a natural meaning in addition. We do not perceive any relation (contact, inherence, etc.) between word and object; thus it must be conventional. The Mīmāṃsaka retorts that there is an element of convention in our understanding and communicating meanings, even though the meanings themselves are naturally established. He gives many reasons why one cannot construe the original meaning-relation as conventional.

This hypothesis of an additional relationship of *śakti*, a natural relation, cannot, says Jayanta, be perceived or inferred. If everything can be explained by appealing to convention, the additional hypothesis of *śakti* is gratuitous. The fact that words appear to have their meanings fixed is because God lays down the conventions at the begin-

ning of each cycle; the assumption of beginningless *śakti* gains nothing.

Objection: To establish a convention one must say something like "I establish this convention"; but if God did that at the beginning of creation the words he used must have gotten their meaning somewhere previously. *Answer*: Just as God can create mountains merely by his desire, so He creates speech by his desire, and gives it a conventional meaning. It is true that to convey this meaning to people he must create the Vedas, but the opponent has already admitted that the Vedas are created (by the sages) to convey already established meanings, so he should not have any difficulty accepting Jayanta's theory that God creates the Vedas to convey meanings already established by God.

153. (E222-23) Jayanta refutes the position that there is an eternal relation between a word and its meaning by showing that no such relation is known through perception or inference, and that in any case it is redundant, convention providing a simpler explanation.

Objection: Since convention is dependent on men's desires which are irregular, there would be confusion between the referents of words and the content of a man's idea at a moment. *Answer*: No, that there are fixed kinds of objects is guaranteed through the relation of objects to universals. The kinds of things in the world are not dictated by the natural power of words, as the Mīmāṃsaka seems to think. If it were so, a new word could not convey an old meaning, but it can.

154. (E226-29) Jayanta says that the validity of the Vedas is due to their being spoken by trustworthy people, not to their eternality. *Objection*: What is the proof that sages are trustworthy? Not perception, clearly. Not inference, because there is no relevant perception to base it on. *Answer*: This has already been answered. God is trustworthy, and He must be invoked to explain the authorship of the Vedas. Furthermore, the opponent is mistakenly trying to justify by inference a thing which can only be known through authority; the case is similar with, e.g., the Āyur-Veda (medical) texts, whose authority is not to be thought of as inferred from experimental results.

155. (E231-71) There follows a lengthy section in which Jayanta treats the claims of various texts to validity through authority: he defends the authority of the Atharvaveda, as well as of such texts as the Tantras and the scriptures of Śaivism and of Vaiṣṇavism, since they are in accord with the Vedas, but he rejects the teachings of Buddhism since they are not. He seems, however, to accept the actual words of Gautama the Buddha, arguing that the Buddha, being an incarnation of the one God, spoke authoritatively.

Jayanta is really quite tolerant of a wide variety of claims to scriptural status, only rejecting texts which are clearly born of lower impulses. He defends the Vedas' authority against a number of standard objections.

156. (E271-82) The question of universals is generated by the question of what a word means—the individual, the universal property, and/or the characteristic shape (*ākṛti*).

Now an objector begins a lengthy argument against the very existence of universals. (1) Universals cannot be shown to exist, since they cannot be perceived. The operation of the senses is confined to what is presented at the present moment, and thus perception cannot bring about classification, which involves relation with what went before and what is to follow. (2) Universals cannot be proved to exist through inference or verbal testimony, since these instruments involve conceptual constructions (*vikalpa*) and thus do not get at substantial reality. (3) There is no difference between the individual and his properties, as there is a difference between, say, a pot and a cloth. Difference is shown by the fact that one can have a thought of one thing without having the thought of the other, but in the case of an individual and his property the thought of the one necessarily involves the thought of the other. (4) If the Naiyāyika complains about the previous argument, contending that individual and property are different since (on his theory) they are each located in distinct loci, the objector refuses to allow that any relationship between distinct things is perceived in the case of individual and universal. (5) Does the universal occur completely in the individual, or does only a part of it do so? Familiar difficulties are adduced in either case. (6) If the Naiyāyika appeals to inherence, a relation between inseparables (*ayutasiddha*), how can there be a "relation" between two things which are not separate? The objector canvasses the Vaiśeṣika and Nyāya views on which things are inseparable from which. (7) The Naiyāyika may wish to characterize the relation of universal to individual as a relation between a qualifier (*rūpa*) and the thing it qualifies (*rūpin*), but what does the term "qualifier" denote here —color, or shape, or a thing's nature? Not color, since air and the internal organ have no color. Not shape, since qualities and motions have no shape, though they are supposed to have universal properties inhering in them. And surely not nature, since then individual and universal will be identical, in opposition to the Nyāya contention. (8) Kumārila holds that an individual must be held to have a dual nature, inasmuch as it resembles some things and is different from some others. But this must be wrong, as one single

thing cannot be known by a single act of perception to have two mutually contradictory characteristics—both one and many, eternal and noneternal, etc. These judgments which we admittedly make cannot be accurate but must involve conceptual construction. Thus the apparent class character of cows is due to conceptual construction resulting from the efficiency in treating together things which produce the same practical results.

The Buddhist objector continues, by raising the question how inference can occur if there are no universal properties, no kinds of things. The answer is in terms of the *apoha* theory, which is set forth along with Mīmāṃsaka attempts at its refutation and a defense of the theory.

157. (E282-84) Jayanta now begins his rebuttal. First he asks : Do you, the Buddhist, affirm the *apoha* theory because of a view about reality or because of a view about language ? I do not wish to quarrel about the latter, but you have not made the case out concerning the actual nonexistence of universals. After all, we do have valid knowledge of universals—i.e., we entertain judgments which are produced from contact between object and senses and which is free from sublation (*bādha*). Your doctrine that at the first moment of sensation we only grasp difference and not similarity is sheer dogma. How could we possibly adjudicate an argument on this basis—you saying that the first moment of perception is one way, and I saying that it is another ? It is not a matter of oath taking ! It must be resolved by fair consideration of theoretical concerns. I claim that the Nyāya interpretation of nonpropositional (*nirvikalpaka*) judgment is better than the Buddhist's because it explains how a subsequent propositional judgment can arise of the sort that actually does arise —namely, one which classifies objects into kinds. To explain common experience, then, one should admit that in the first stage of perception itself we grasp both similarities and differences between things.

158. (E284) With respect to objection (8) of section (156), the rule appealed to, that two opposite characteristics cannot reside in one individual, is faulty. It is only when cognition of one characteristic sublates the previous cognition of the other that one could invoke such a rule. Experience displays many instances of contrary characteristics coexisting— e.g., in a variegated-colored cloth. And the same experiences refute the other objections of section (156) stemming from considerations about relations and conceptual construction.

159. (E284-86) As for (5) of section 156, our answer is that

a universal property resides in its entirety in each individual instance. The difficulties urged must be removed, since experience shows that this occurs, and the relation of inherence is appealed to remove them. But inherence is a familiar relation, found in other relata than these : it relates qualities to the substances they qualify, it relates wholes to their parts, etc.

160. (E286-88) Now if you reject universals you will be unable to explain how we come to have classificatory judgments. Your alternative explanation in terms of your *apoha* theory, appealing to the practical efficiency of conceptual constructions, will not do, since you have not shown that those conceptual constructions could perform the necessary practical function. How can several completely unique conceptual constructions combine to produce a classificatory judgment that several individuals belong to one kind? On your assumptions, they cannot. And if you insist that they can, that your "conceptual constructions" are grasped by proper instruments of knowledge, then your position differs from ours only verbally.

161. (E290) The Mīmāṃsaka does not distinguish the *ākṛti* from the universal property. Jayanta explains that *ākṛti* is commonly understood as "consisting of parts being joined together," but that the point is that the *ākṛti* is the *aggregation* of the parts. The Mīmāṃsā view is that the meaning of a word denoting a perceived individual cow has to be identified as the *ākṛti*. But since the above is what *ākṛti* means the Mīmāṃsā view will not do, since the aggregates of parts of cows differ among each other, despite their all being cows. Different kinds of cows have different configurations. Thus the *ākṛti* cannot be that which is designated by a word, any more than the universal property can. The designatum of a word must be the individual, since it is the individual which is the thing injunctions are given about; individuals can be manipulated, etc. So says one sort of theorist.

162. (E292-94) The Mīmāṃsaka disagrees with that sort of theorist, however. He asks : Does the word mean one individual or all individuals? Clearly not all individuals there are! If it is said that the word "cow" denotes just those individuals which are qualified by *cowness*, then *cowness* is the meaning, not the individuals, since it is the universal *cowness* which determines the applicability of the word.

Someone here suggests that the word "cow" may mean both the individual and the universal. The Mīmāṃsaka rejects this as placing too much of a burden on a word, though he does not deny that hearing a word causes us to identify or reidentify a particular individual.

But this occurs through the mediation of the universal, which is why the universal must be taken as the meaning.

As for the argument that the individual is the meaning because it is the individual which anyone hearing a command has to deal with in practical terms, the Mīmāṃsaka says no, since there are commands which require actions of a general nature not involving any particular individuals.

163. (E294-97) Jayanta now answers the Mīmāṃsaka. The universal cannot be the meaning of a word in use, since such a word is declined. A declined noun points to individuals (one or more, of a certain gender and in a certain relation to the verb) in virtue of that individual's being characterized by the universal. Thus the meaning of a word cannot be the universal *simpliciter*. However, we Naiyāyikas hold that the meaning is the individual qualified by the universal. Like perception, the word relates directly to both.

164. (E297-300) Since the Mīmāṃsaka accepts that the function of a sentence is regularly injunctive, he should admit that words relate through their meaning at least in part to individuals. Jayanta goes on to elaborate on grammatical points in concluding this argument.

165. (E300) Jayanta now turns to the question of sentence meaning. He alludes to 3 theories : (1) the meaning of a sentence is the judgment conveyed by the mutual relationships among its constituent words; an external (*bāhya*) meaning is impossible; (2) external meaning just *is* the mutual relationship among the words, so sentence meaning *is* external to word meaning; (3) the sentence meaning is the (meaning of the) main verb qualified by the mutual relationships among the other words.

166. (E300-02) The first view is explained. The judgment conveyed by the sentence must be unitary, and thus intrinsic to the whole sentence and not to any of its parts. The proponent of this view turns out to be a Buddhist, for one of his reasons for holding this view is that since ideas are momentary, there can be no meaning relationships (such as expectancy, etc.) among them.

Jayanta refutes this view by pointing out that since the meaning of a sentence is different from the meaning of each word in it, sentence meaning must be "external" to the meanings of each of its words.

167. (E302-06) The third view of section 165 is now entertained. Its proponents wish to say that the main verb carries the meaning of the sentence, and thus that the action enjoined is the primary meaning of every sentence. Jayanta deals with this by a stepwise procedure of adducing arguments to show that other things

are more important. First, he argues that the result of the action must be the sentence meaning, since it is the result for which the action is to be performed. But then, next, it turns out that the person who will enjoy the result is even more important. But this allows Jayanta to refute the entire line of thinking. The person being enjoined to act cannot be the meaning of the sentence, nor can the result, since nothing is said about its being fulfilled.

168. (E306-22) Jayanta's own view is that it is productive activity (*bhāvanā*) which is the meaning of the sentence, or rather, it is the activity enriched with a suitable result and tied down in respect to result, means, and procedure. But this activity is not the agent's action, which was shown not to be the meaning in the previous section; it is rather the *doing* common to all action verbs. There follows a lengthy discussion of Mīmāṃsā like theories about the function of verbs, injunctions, the optative mood, etc.

This *bhāvanā* of which Jayanta speaks actually has two parallel varieties. The previous paragraph spoke of the activity done : this is the *arthabhāvanā*. But one must also recognize the *śabdabhāvanā*, the function of words to induce that activity. This latter function also is determined in three ways, corresponding to agent, result, and means, which together determine the *arthabhāvanā*. Corresponding to the result (*what* is done) is the word's inducing a person to activity; corresponding to the means (*by what* it is done) is the word order; and corresponding to the procedure (*how* it is done) are the *arthavāda* statements giving precise details of the enjoined ceremonies.[13]

169. (E323-24) In the course of these grammatical subtleties, the question is raised: what is the content of a negative injunction (*niṣedha*)? Jayanta discusses several possible answers. His preference is to treat the negative particle as in effect constituting the verb in a negative injunction, with the grammatical verb conditioning the negative particle as an adjunct indicating *what* is proscribed.

170. (E332-34) Returning finally to the question: "What is the meaning of a sentence," Jayanta remarks that the *sūtrakāra* and his commentators did not define sentence meaning since it was not within the purview of their investigation. An objector taunts Jayanta to distinguish sentence meaning from the meanings of the constituent words. Jayanta does, explaining that the meaning of the sentence is the collection of word meanings joined together.

171. (E334-35) If the opponent insists upon Jayanta's identifying some category (*padārtha*) as the principal meaning of the sentence, Jayanta prefers that the category be that of the result for which the activity enjoined is undertaken.

172. (E335-36) A couple of additional suggestions are taken up and refuted. One party suggests that the meaning of a sentence is the effort (*udyoga*) marked by a flickering (*spanda*) in the self. Jayanta argues that there is no such flickering. Another suggestion is that the sentence meaning is intuition (*pratibhā*) which shines forth when the words are understood. This is rejected: there is no single intuition—the same words produce different reactions in different hearers.

173. (E336-37) Jayanta now turns to consider the *sphoṭa* theory. It is unacceptable to the Naiyāyikas because it makes out the cause of understanding words to be something eternal and established by sages (*āpta*) whereas Nyāya holds that words are noneternal and conventional. Thus the *sphoṭa* theory has to be refuted. But first, it must be sympathetically expounded.

174. (E337-44) The *sphoṭavādin* first refutes the notion that letters convey meaning in themselves either separately or collectively. Then he proves by inference that, since we understand the meanings of words, there must be a cause of this understanding, and since it is not the letters themselves, it must be the word *sphoṭa* which produces our understanding of the word. This *sphoṭa* becomes manifest as soon as the first letter of the word is heard, and is made clearer by the succeeding letters. Or, if one prefers, one can view sound as that which manifests the *sphoṭa* —one sound, appearing differentiated through conditioning (*upādhi*). In this way it can be held that the *sphoṭa* is known not only through inference but also by perception.

But this view is only conditionally correct. For the ultimate *sphoṭa* is the *sphoṭa* of the sentence. There are in reality no word *sphoṭas*, only sentence *sphoṭas* which are partless. The appearance of parts—words—is a delusion (*bhrama*). This leads finally to the identification of the *sphoṭa* with Brahman itself, manifesting itself (*vivarta*) as many through association with beginningless *avidyā*. There is not even in reality anything meant by a sentence which is distinct from the speaker. Even this apparent distinction is illusory.

175. (E345-48) Jayanta proceeds to refute the *sphoṭavādin*. The inference that the *sphoṭa* theorist used fails, because the letters do convey the meaning of a word collectively. The *sphoṭavādin* thought to set this possibility aside because he denied the possibility that the letters produced the resultant word meaning progressively through their sequential production. But this is precisely what happens. Moreover, it is quite usual for things in sequence to produce effects collectively. Mouthfuls of food in sequence produce a single satisfaction which is not forthcoming from just one mouthful. Just

so, as the letters are spoken, at each stage a result is produced (*avāntarāpūrva*); when the final letter has been spoken the collective result is the whole word meaning (*paramāpūrva*).

176. (E348-52) The alternative possibility which the *sphoṭavādin* mentioned, according to which sound manifests the *sphoṭa*, is now taken up. The one sound cannot manifest the word meanings in itself, since when one speaks very fast, although the words are spoken, the hearer does not understand them. This shows that each letter must be articulated and that the meaning is built up progressively. Thus the suggestion that *sphoṭa* can be known through perception will not do.

177. (E352-56) As for the contention that the meaning of a sentence, which the *sphoṭavādin* takes to be the ultimate single sound (=Brahman), is without parts, Jayanta points out that although it may be single it does not follow that it is partless. A cloth is single but it has parts.

178. (E356-64) Having shown that letters successively understood convey the meaning of a word, Jayanta now shows that the letters also convey the meaning of a sentence by producing judgments concerning words which are then recollected all together at the hearing of the final letter, the result being the understanding of the meaning of the sentence.

179. (E365-72) Jayanta now takes up the two competing theories about sentence meaning, namely *abhihitānvayavāda* and *anvitābhidhānavāda*. According to the latter view, the words of a sentence do not denote their meanings separately but only function to help convey the meaning of the sentence. This view holds, that words have no meanings in isolation. *Abhihitānvayavāda* attributes separate meanings to words and construes the meaning of the sentence as a function of the meanings of its component words. Jayanta points out that the arguments given above against *sphoṭa* also apply against *anvitābhidhānavāda*.[14]

180. (E375-92) Jayanta concludes the first Book of his treatise with an extended discussion of the uses of grammar as expounded by Patañjali in his *Mahābhāṣya*, for instance. After considering all sides of the question he concludes in favor of grammar.

PART TWO : THE OBJECTS OF KNOWLEDGE

181. (E1-7) Jayanta describes the views about the self held by Cārvāka, Mīmāṃsā, and Advaita, setting aside the account of the Advaitin according to which the self is consciousness and suppor-

ting the view, which Nyāya shares with Mīmāṃsā, that the self is perceptible.

182. (E7-14) He goes on to show that the self is inferrable as well. In the course of this he takes up an objection that the marks which the Naiyāyika takes to prove the self actually are merely marks of the body. After expounding the two views about "cooking" (see pp. 84-86) he repudiates this objection by showing that neither the body, nor the senses, nor even the internal organ are conscious, and thus the marks, since they must prove the existence of a seat of consciousness, prove the existence of the self.

183. (E14-39) Jayanta reviews arguments against the Vijñānavādin's thesis of momentariness, showing that the fact of recollection refutes that thesis.

184. (E39-45) Now he refutes the Cārvāka by proving the existence of *adṛṣṭa*.

185. (E45-47) Next he discusses Gautama's definition of body, noting that some had complained that the definition, Since as it specifies that bodies must move, both overextends to apply to chariots and underextends by not including immobilized frogs. Jayanta answers that the intention is to indicate by the word *ceṣṭā* in the definition the ability to display movements initiated by a self. Thus chariots, not having that ability, are not bodies while the frog in the stone, having the ability but being temporarily restrained, does have a body.

186. (E48-55) Jayanta shows that the sense organs are not to be confused with the parts of the body in which they abide. Sāṃkhya holds that the senses are not elemental, as Nyāya thinks they are, but evolved from the *ahaṃkāra*, since they are capable of behavior that is not characteristic of material substances. Jayanta shows that the senses, even though they are elemental, are capable of grasping the various objects and behaving in the fashion in question.

187. (E55-58) Jayanta reviews the objects (*artha*).

188. (E58-67) Next he takes up the notion of *buddhi*, first expounding the Sāṃkhya theory. He professes not to understand the view that the *puruṣa* is conscious but that the *buddhi*, though unconscious, brings about a propositional judgment, since if the *buddhi* is a judger it must surely be conscious. Sāṃkhya says that the *puruṣa* "sees" while the *buddhi* "determines" : what is this "seeing"? One sort of answer given is that seeing is a kind of reflection. Jayanta asks: What is reflected—the *puruṣa* in the *buddhi*, or the *buddhi* in the *puruṣa*? *Puruṣa* cannot pass on its power of consciousness to the *buddhi* because its consciousness has been defined as untransferable. If the

buddhi sends up reflections to the witnessing *puruṣa*, the *puruṣa* must make a response in order to "see," but this runs counter to the definition of *puruṣa* as unchanging and by nature a "seer."

Sāṃkhya replies that what happens is that the *buddhi* sends up a specific content which triggers the specific activity with respect to that content, even though *puruṣa's* witnessing nature is eternal and natural. Jayanta replies that it is impossible to distinguish in all this the activity of the *buddhi* from that of the witnessing consciousness. Thus the assumption that *buddhi* is different from *puruṣa's* consciousness is faulty, and the Nyāya view is thereby demonstrated to be true. No doubt, Jayanta adds, an eternal internal organ is necessary, but that is already present as the *manas*. Thus the *buddhi* conceived as an additional "organ" is superfluous. The Sāṃkhya argues that unless *prakṛti*—including *buddhi*—is allowed to bind the *puruṣa*—the whole doctrine of bondage and liberation becomes unintelligible. Jayanta's answer is to point out that the Sāṃkhya account of bondage is itself incoherent, since according to it the *prakṛti* binds the *puruṣa* even though *puruṣa* is by nature pure witnessing consciousness, yet after realization *prakṛti* ceases to bind—but no explanation can be found for this, since *prakṛti* admittedly can bind *puruṣa* despite the latter's natural purity.

Jayanta now sets forth the *satkāryavāda* view of causation, of which the Sāṃkhya is a notable exponent, and criticizes it. How can the cause and effect both exist simultaneously in the same thing? They are not both seen there. He criticizes various ways of construing the relation which the Sāṃkhya claims to connect cause to effect. Sāṃkhya speaks of a relation of "manifesting" (*abhivyakti*), as well as of a "potency" (*śakti*) which causes the effect to be manifested at a certain time and place. We do not see any "potency," and it cannot be the effect (say, the pot) existing before its production, since it does not have the form of a pot. More sophisticated ways of identifying the "potency" are considered and rejected, since they involve notions (such as "material cause" (*upādāna*) whose implications are shown not to be compatible with *satkāryavāda*.

189. (E67-71) After discussing the topics of the internal organ and activity, he explains the different kinds of defects (*doṣa*) in Gautama's list as well as the ways of extinguishing them, adding that they will be discussed in greater detail in the section on liberation.

190. (E71-74) In discussing rebirth, Jayanta takes occasion to describe the process of construction of a human body, which is the same—from atoms with the assistance of God—as with any material body.

191. (E74-75) In considering the topic of fruits (*phala*), our author points out that while some kinds of actions produce their results immediately, performing prohibited actions characteristically produces results in a later life.

192. (E77-81) Here begins a lengthy discussion of liberation. First, Jayanta reviews the Vedānta gibe that the Vaiśeṣika self in liberation is like a stone. He explains the Advaita view of the eternal bliss of the self, but points out that there is no evidence or proof for this.

193. (E82-117) Jayanta appeals to the standard distinction between the two kinds of sentences in the Vedas, the *karmakāṇḍa*, and *jñānakāṇḍa*, to answer the objection that liberation is impossible since the Vedas are exhausted in injunctions to act. Performing acts is not sufficient in itself to achieve liberation, but by practice of activities conditioned by correct knowledge one can ward off the wrong judgments which produce faults. That liberation is achievable is shown by our experience of the faultless self in deep sleep and sometimes even in the waking state.

The position of *jñānakarmasamuccayavāda* is set forth. Such a theory holds that gaining liberation involves a simultaneous, twofold process of on the one hand burning off the fruits of one's actions by performing prescribed duties over many incarnations, on the other of gaining true knowledge. Jayanta answers that the *samuccayavādin* has not explained why new *karma* is not born simultaneously with each performance of a duty, so that one never finished burning off the fruits. Furthermore, liberation cannot be an effect of *karma*, since if it were it would be noneternal. Liberation must be the natural state of the self, not a product of action. *Karma* is an aid to liberation by making one a better person, but the main method of gaining liberation is through knowledge.

194. (E91-99) Jayanta runs through a number of views about the nature of the self and our knowledge of it. Vedānta, Grammarian, Buddhist, Sāṃkhya, and Yoga views are considered. Jayanta repeats his critique of identity and difference with respect to Advaita and Buddhist views. He criticizes the Advaitin notion of *avidyā* as being self-contradictory: the Advaitin says that *avidyā* is part of an eternal *māyā-śakti*, but has to be removed, and furthermore it is also called "nonexistent"! He shows that the Advaitin confuses nonexistence with noneternity; noneternal things are removable, but not nonexistent ones. If the Advaitin says that *avidyā* = *ajñāna* or lack of understanding, and is therefore nonexistent, Jayanta retorts that doubt and error (*viparyaya*) are lacks of true knowledge but are nevertheless

existent. Furthermore, if *avidyā* is not positive, how can it produce that limitation (*avaccheda*) of Brahman which is called the individual self (*jīva*), a limitation analogous to the (positive) limitation which distinguishes the *ākāśa* in the pot from the *ākāśa* in the monastery?

Jayanta attacks the Advaitin's claim that *avidyā* can lead to true knowledge (*vidyā*). How can something nonexistent, like a sky-flower, be a means to anything? The Advaitin replies that it is as when a configuration of lines conveys a true meaning, or as when one is frightened by a snake. Jayanta answers that in both cases there is something which has a nature (*svarūpa*) which produces the result in question—in the one case that cause is the configuration of lines, which is what it is really regardless of what it produces; in the second instance what produces fright is not an unreal snake but a judgment that a snake is present—a judgment which, though false, has a nature as an entity in its own right.

A final jibe against the Advaitin: if there is only one self, why is it that when one is freed all are not freed? The Advaitin is made to respond that it is just as when in the same body a foot may be aching while the head is healthy. Jayanta retorts that in the case of the body there is a delimiting factor distinguishing foot from head, etc. Is there such a delimiting factor in Brahman?

195. (E99-102) Next Jayanta turns to the Grammarians, who hold the view of *śabdādvaita*, according to which everything in the world is a *vivarta* or manifestation of word (*śabda*). Against this Jayanta poses several arguments : (1) We see that people can distinguish and assimilate things without knowing the words for those things. (2) In learning the language from our elders we must both hear the word and see objects, or at least entertain an image of the object the word is intended to denote. (3) Pronouns would be nonsense unless there were objects for them to refer to. (4) Kumārila is quoted as arguing that our conception of an object remains the same after we have learned the word for it as it was before; what is added is the conception of the thing's being a name-bearer.

The Grammarian holds that the relation between word and object is one of superimposition. But this is wrong. A word is the means whereby we identify one of the properties of a thing which bears a number of properties. Words are one kind of thing, objects another, and judgments still another. And why does the Grammarian need the doctrine of superimposition, since according to him object judgment, and word are nondifferent? Words light up objects in a manner similar to that in which sense organs light up objects.

In any case, superimposition is impossible in the case of words.

For superimposition occurs either in the manner of shell-silver, because of similarity, or in the manner of a colored object reflected by a crystal and appearing somewhere else. In either case both items must have distinct natures of their own. But in the Grammarian interpretation the object (Brahman) is formless and words have form. Thus they certainly cannot be thought similar. Nor can it be like the reflection through a crystal, since while the reflection and the original object are grasped by the same sense, a word and its object are not grasped by the same sense.

Jayanta next takes up the Grammarian's claim that the relation between words and the world is one of *vivarta*. Jayanta evidently feels that the relation of *vivarta* is capable of more than one interpretation. Interpreting it first as transformation (*pariṇāma*—as e.g. milk into curds) he points out that adoption of this relation defeats monism. On the other hand, if *vivarta* refers to a magical relation of unreal appearances to their ground then this has been previously disproved, at the point when the reality of external objects was demonstrated. Further arguments recapitulate the attack on Advaita.

196. (E103-10) In this section Jayanta expounds the Vijñānavāda view of "self" (or "no-self") and then proceeds to refute it. We summarize here some of Jayanta's points in rebuttal.

Vijñānavāda holds that the cognizer and what is cognized are not distinct. The appearance (*avabhāsa*) of the content of awareness is the same as the appearance of the consciousness itself. If there were independent external unconscious (*jaḍa*) objects which cognition grasped, they could not in any case be known, since only what is of the nature of illumination (*prakāśa*) can appear (*avabhāsitum*). And this illumination must be without form (*nirākāra*); if it had form it would be unconscious and unable to appear.

Jayanta agrees that illumination is without form, but reasons that it is precisely the form of the external object which distinguishes the content of one consciousness from another. To be sure, we sometimes grasp illumination itself as content of consciousness, but only grasped illumination becomes content. Thus what is called "form" is the grasped content, what is called "illuminating" is the consciousness or judgment which grasps the content. The object needs no further illumination to become content of an illuminating.

The Vijñānavādin tries in several ways to establish that a judgment must itself be grasped in order that its content be cognized. Jayanta criticizes some of his arguments as confusions deriving from language. The Vijñānavādin says that the eye requires a judgment to see an object, just as it requires a candle to illuminate the objects

in a dark room. But the analogy breaks down. A judgment does not illuminate in the same sense that a candle illuminates. *Ex hypothesi* the eye does not light up the object like a candle (for that is the Nyāya view); nor does the candle perform an act of grasping like the eye. Jayanta doubts that anything is ever known as illuminating both itself and other things. The Vijñānavādin asserts, on the contrary, that judgments, words, and candles all share this interesting property. Jayanta shows that each of the three require different kinds of causal conditions for self-illuminating and object illumination, so that the property supposedly shared turns out to be the result of conflating different properties.

Another argument adduced by Vijñānavāda is that we must grasp our cognition (in addition to its content) at the moment of its arising, since there is nothing to prevent our doing so, and since we later recall having cognized. As to the first, says Jayanta, it is not a matter of an obstruction preventing; rather, grasping of our cognizing requires a certain collection of causal conditions (*sāmagrī*) which, in the case in question, presumably is not present. As for memory, we do not usually recall that we grasped our cognizing, but rather that we cognized an object without having been aware of doing so.

197. (E110-16) Jayanta moves on to deal with *asatkhyāti*, the view of the Mādhyamika Buddhists, and *ātmakhyāti*, the view of the Vijñānavādins, concerning erroneous cognition. He says he has already refuted the Mīmāṃsā *akhyativāda* view, and he himself espouses the view of *viparītakhyātivāda*, that in erroneous judgment we cognize something which actually exists but not at the time and place it is seen to.

In treating *ātmakhyāti* Jayanta clarifies the differences between the Vijñānavādin's *vāsanā* and the "trace" (*saṃskāra*) of the Nyāya. He also vigorously criticizes the hypothesis of the *ālayavijñāna* as a locus for *vāsanās*, arguing that if the *ālayavijñāna* is not momentary this contradicts Buddhism, and if it is, what guarantees that subsequent *vāsanās* spring up perpetuating their kind?

The treatment of *asatkhyāti* presents the Mādhyamika as essentially recapitulating arguments already refuted in the foregoing.

198. (E117-25) This section takes up the subject of *doubt*. Two lines of interpretation of the *sūtra* on doubt are reviewed, one credited to some *ācāryas*. The explanation of the *ācāryas* involves using the *āvṛtti* method, reading the one *sūtra* several ways to get the several kinds of doubt out of them which Vātsyāyana finds there. The other method construes doubt as essentially a matter of apprehending contradictory attributes; this line of thought dismisses

as unprofitable the efforts of the *ācāryas* to find a definitive list of causal factors productive of doubt. Jayanta refuses to prefer one of these interpretations to the other.

An example of a doubtful judgment is offered. It goes as follows: "sound is either a substance or a quality." The doubt arises because a special condition of sound is that it is produced from disjunction, and the puzzle there is whether being produced by disjunction is always resident in a quality or not. Some say there is a kind of disjunction which is itself produced from disjunction; if, so how can *being-produced-by-disjunction* be a peculiar quality of sound, since it also qualifies disjunction ? Two sorts of replies to this source of doubt are offered. (1) It is not *being-produced-by-disjunction simpliciter* which is the specific quality of sound, but rather the particular kind of that property which arises when the inherence cause (of sound) is disjoined. (2) The other sort of reply denies the existence of anything described by "disjunction-produced-from-disjunction." A disjunction, according to the proponent of this view, can only be followed by a motion which produces a contact, not another disjunction. Some even go so far along these lines as to deny that disjunction can be produced from motions at all, in opposition to the views of the *ācāryas*. Again, Jayanta remains noncommittal on the issues here.

199. (E125-26) Following Vātsyāyana Jayanta treats *prayojana* in a hedonistic vein : Purposes are of two sorts; Primary (*mukhya*) and secondary (*gauṇa*). The primary purposes are obtaining pleasure and preventing frustration Secondary purposes are those things which provide the means for accomplishing the primary purposes.

Objection: A purpose cannot initiate human action, since it is neither existent nor nonexistent. If it is existent one needs initiate no action to obtain it; if it is not existent it cannot be obtained. *Answer* : Purpose is an initiator of action when it is entertained as the content of a judgment. In that role it is what comes to a judger as that which is to be obtained.

200. (E126-27) This section treats of the examples.

201. (E127-30) Taking up the puzzle about the fourth kind of tenet, Jayanta quotes from a previous commentator with whom he disagrees and then offers his own explanation, which is that this kind of tenet occurs when one argues in the following way : "let sound be a substance; nevertheless, I shall proceed to prove the impermanence of sound as follows," or "there may be reasons to think that sound is a substance; despite that." I.e., it is the concession one makes to one's

opponent which in English we sometimes refer to as "for the sake of the argument."

202. (130-44) This section concerns the members of the argument form. The general purpose of the five members is shown to be inference for another. An objector thinks there is no such thing as inference for another, since the listener infers fire not from the smoke spoken of by the speaker but from the speaker's words. The justice of this complaint is admitted by Jayanta, but he points out that the speaker intends the hearer to draw the appropriate inferences from his words, so that from the speaker's point of view his judgments are "inference for another."

Treatment of the five members follows well-established channels. Jayanta refutes the five additional members (*jijñāsā, saṃśaya, śakya-prāpti, prayojana,* and *saṃśaya-paryudāsa*). He spends a lengthy passage discussing whether a definition of a member (e.g., "the hypothesis is the setting-forth of what is to be proved") should be construed regularly in an "exclusive" (*avadhāraṇa*) sense (so that the definition would be "the hypothesis is the setting-forth of what is to be proved alone, and nothing else"). Since ordinary assertions are not necessarily to be construed in this fashion, Jayanta sees no reason to construe these definitions in this way either.

Jayanta mentions a number of "fallacies of the hypothesis" (*pakṣābhāsa*), and indicates that these and the so-called "fallacies of the example" are all in fact properly classed as fallacies of the *hetu.*

A discussion follows of *sūtra* I.1.34 explaining the *hetu* term. Two alternative readings are distinguished and elaborately reviewed. The first creates difficulties because of the Naiyāyikas' desire to exclude "only-positive" (*kevalānvayin*) inference while admitting "only-negative" (*kevalavyatirekin*) inference, although perhaps this reading can be construed so as to overcome the difficulties. The second reading, which takes this *sūtra* to answer a doubt as to whether the *hetu* is dependent on the *sādhya* rather than the reverse, is the one preferred by Jayanta.

Several passages are devoted to attacks on, and defense of, the viability of only-negative inferences. The general line of attack is to the effect that by allowing only-negative inferences one allows just about anything to be proved— since for most any *sādhya* and *hetu* one can find some class which falls outside both. Jayanta's defense is that only-negative inferences are only acceptable when some peculiarity in the classes constituting the *sādhya* and *hetu* makes it impossible —say, for example, that the members of one of the classes are beyond perceptibility, so that no individual can be perceived common

to both *sādhya* and *hetu*. It is only when some such special condition is responsible for the absence of a *sapakṣa* that only-negative inference is allowable.

The difference between a *dṛṣṭānta* or example and the third member (*udāharaṇa*, but sometimes rendered likewise as "example") of an argument is that whereas the *dṛṣṭānta* is defined (in *sūtra* I.1.25) as something accepted by both parties in a discussion as exhibiting the features of *sādhya* and *hetu*, the *udāharaṇa* is defined as the adducing of something which actually *does* (whatever anyone thinks) exhibit the features of *sādhya* and *hetu*, as well as something which actually does lack the features of both, adducings which are for the purpose of demonstrating a conclusion.

203. (E144-208) In the concluding sections covering the rest of the "debate" categories Jayanta for the most part elucidates the *sūtras* without special novelty. He prefers to identify the 5 fallacies of the *hetu* under the rubrics (1) *anaikāntika*, (2) *viruddha*, (3) *satpratipakṣa*, (4) *asiddha*, (5) *bādhita*.

NYĀYAKALIKĀ

There has been a great deal of confusion over this work. Ganganatha Jha held that it is Jayanta's abstract summary of Nyāya views on the 16 categories.[15] Umesh Miśra also accepts Jayanta's authorship, but says it is a "very brief explanatory commentary on the first *sūtra* of the *Nyāyasūtras*."[16] It is described frequently as a summary of the *Nyāyamañjarī*, perhaps by Jayanta or one of his pupils. On the other hand, Gopinath Kaviraj points out that the Jain writer Guṇaratna cites a "Nyāyakalikā" as a commentary on Bhāsarvajña's *Nyāyasāra*.[17]

Rather than give a summary, under the circumstances we give here a short essay written for this volume by Janakivallabha Bhattacharya of the University of Calcutta, in which he considers the evidence for and against Jayanta's authorship of the work:

Jayanta is the author of *Nyāyakalikā*. We cannot advance proof positive to establish the identity of its author Jayanta and Jayanta Bhaṭṭa. The book is *not* a synopsis of Jayanta's *Nyāyamañjarī*.

The salutation to Śiva at the beginning of the work speaks in favor of the identity of Jayanta with Jayanta Bhaṭṭa, who displays great reverence for Śiva. If *Nyāyakalikā* is the work of Jayanta Bhaṭṭa it must be his earliest work. It contains reference neither to his personal life nor to his family nor to contemporary events.

A point may be raised against the said identity of Jayanta with

Jayanta Bhaṭṭa. Jayanta Bhaṭṭa is a great critic of the Buddhists. This Jayanta, the author of *Nyāyakalikā*, departs from the traditional explanation of *abhyupagama siddhānta* (one of the kinds of tenets) and follows the Buddhist interpretation of the term. The explanation of the term is as follows: "Aparīkṣito api kaścid artho buddhyātiśaya-cikhyāparyiṣayā prauḍhavādibhistathetyabhyupagamyamānoabhyu-pagamasiddhāntaḥ" (*Nyāyakalikā*, p. 9). *Translation*: "The uncritical popular tenet is accepted in order to demonstrate the superiority of one's own intellect."

Nyāyakalikā refers to another interesting hypothesis. The self is not directly known. Our self-consciousness refers to our body. The self is known by inference (*Nyāyakalikā*, p. 5).

Another point may be put forward against the identity of the two Jayantas. Jayanta Bhaṭṭa's favorite hypothesis is that the collection of all conditions is the cause par excellence. This Jayanta, the author of *Nyāyakalikā*, makes no mention of it.

There are two or three points in favor of the identity of the two Jayantas. (1) The explanation of *tarka* in *Nyāyakalikā* and *Nyāya-mañjarī* is almost the same. (2) The catholicity of spirit of Jayanta is noticed in the remarks "Ṛṣyāryamlecchasādhāraṇam caitad āpta-lakṣaṇam"—"the definition of trustworthy person is equally applicable to sages, the cultured, and the uncultured" (*Nyāyakalikā*, p.3). (3) The invariable concomitance which holds between the *hetu* and the *sādhya* is discovered by an act of inner perception with the aid of sensuous perception.

The stamp of Jayanta Bhaṭṭa is faintly noticed in the *Nyāya-kalikā*. It really is a "bud of logic." It is a primer of Gautama's logic meant for the young learners. Thus the title of the book seems to be very apt.

It deals with the sixteen topics of logic mentioned in Gautama's *Nyāyasūtras*. Evidence of Jayanta Bhaṭṭa's mature thought is conspicuous by its absence in this work. Had it not been Jayanta Bhaṭṭa's work it would not have been preserved.

The importance of this book lies in the fact that it helps us in understanding the frame of Jayanta's mind and also the gradual unfolding of his intellectual powers.

17. THE NYĀYARATNAKĀRA

Gopinath Kaviraj[1] remarks that there was an old work called "Nyāyaratna" on which Vācaspati Miśra is reputed to have written a commentary. The work is lost, and we know nothing of it

18. TRILOCANA

This philosopher, whose works have been lost, was clearly one of the leading Naiyāyikas among the brilliant group who taught and wrote during the 9th century. Vācaspati Miśra identifies him as his teacher,[1] and Jñānasrīmitra, the 11th century Buddhist logician, identifies him as one of the four "pillars of Nyāya" along with Śaṃkara, Bhāsarvajña, and Vācaspati.[2]

D. C. Bhattacharya[3] suggests, on the basis of a quotation found in the *Dharmottarapradīpa*, which appears to refer to Trilocana as a "Karṇāṭa in rags," that he came from the Mysore area. As to his date, we must conclude that he flourished around the beginning of the 10th century, since the best evidence we now possess about the date of his pupil Vācaspati does not allow us to suppose that the polymath was born much before 900. Other estimates of his date, giving a much earlier time, are based on an earlier time for Vācaspati. Thus we may speculate that Trilocana lived from about A. D. 860 to 920.

Trilocana wrote at least one work, and possibly as many as three. The title of one of his works, *Nyāyamañjarī*[4] has naturally given rise to a lot of difficulty, since it is identical with the title of Jayanta Bhaṭṭa's masterpiece. For some time it was thought that Vācaspati might have studied with Jayanta. However, it is apparent that the Buddhist logicians Jñānaśrī and Ratnakīrti, who quote Trilocana frequently and by name, were for some reason unacquainted with Jayanta's writing. (Jayanta and Trilocana are not the same philosopher, for their views differ on various topics, see below.)

Works by two other titles are ascribed to him by various later writers. One title, *Nyāyabhāṣyaṭīkā*,[5] indicates that he wrote a commentary on a *Nyāyabhāṣya*, presumably Vātsyāyana's. It is quite possible that this work is the same as the *Nyāyamañjarī*—there is at any rate no evidence against the identification. The other title given is *Nyāyaprakīrṇaka*.[6] "Prakīrṇaka" means a miscellany, and Anantlal Thakur suggests that this may be a portion of a larger work, perhaps the *Nyāyamañjarī*.[7]

On a number of points the views ascribed to Trilocana by Buddhist and Jain writers are not such as to require special mention here, since they merely repeat what is by now common Nyāya doctrine.

Thakur[8] has collected a good many of the references to views of Trilocana, and Oberhammer has discussed one of Trilocana's contributions in considerable detail.[9] Some of the passages suggest that in the opinion of the writers—11th to 12th century for the most part—it was Trilocana who had rescued Nyāya-Vaiśeṣika from its sorry

state following Uddyotakara. Vācaspati himself remarks that the views of Uddyotakara had been lost in a mire of bad treatises, and Thakur identifies the "bad treatises" most notably to be Dharmakīrti's, a proper answer to which had not been forthcoming during the 8th century and is now first being essayed by Trilocana and Vācaspati himself.[10]

Vācaspati credits Trilocana with clarifying the *Nyāyasūtra* definition of perception (NS I.1.4) by introducing the distinction between propositional and nonpropositional judgments in place of a fuzzy explanation of Vātsyāyana's.[11] Where Vātsyāyana interprets the requirement that perception be "well-defined" as intended to exclude doubt from the scope of the definition of perception, Trilocana and Vācaspati point out that doubt is excluded already by other parts of the definition, notably in the requirement that the judgment "not wander," i.e., be uncontradicted. What Trilocana suggests is that *sūtra* I.1.4. is only partially a definition: the specification of sense-object contact and of nonwandering are defining conditions, but the other two words —*avyapadeśya* and *vyavasāyātmaka* — are not part of the definition but rather indicate the two kinds of perceptual judgments to which the definition applies, namely nonpropositional (*nirvikalpaka*) judgments (indicated by *avyapadeśya*) and propositional (*savikalpaka*) (indicated by the expression "well-defined") (*vyavasāyātmaka*).

Another aspect of Nyāya philosophy in which Trilocana's reputation is high concerns the way in which he carried on the attack against the Buddhist theory of momentariness. Although Udayana is generally recognized as a champion of the view that we should talk of the collection of causal conditions rather than of "the cause," the Buddhist logicians of the 11th century seem to have credited Trilocana with special responsibility in urging the argument.[12] It is hardly new in Nyāya, however; we have seen Jayanta and even others before him making the point as against the theory that a proper explanation of causation requires the postulation of a special "causal-efficacy."

Other minor divergences and original ideas are credited to Trilocana by Varadarāja and by Rāghava Bhaṭṭa, the commentator on *Nyāyasāra*, who comments that when Bhāsarvajña mentioned "others" who speak of eight fallacies of the example he had in mind Trilocana.[13]

Perhaps the most interesting of Trilocana's known contributions is the notion of essential relation (*svābhāvikasambandha*).[14] This is presumably an alternative term for the later *svarūpasambandha*, "self-linking connector." The particular relation that Trilocana proposes

analyzing as self-linking is the relationship of pervasion (*vyāpti*). The puzzle is generated by the fact that we seem to be able, in inference, to get knowledge of things not directly experienced. We get this knowledge on the basis of things which are directly experienced. But what sort of a relation is it that connects the two sorts of things? And what organ is it that can grasp such a connection? If what is needed is knowledge of a generic relationship between all the things of the perceived kind and all the things of the unperceived kind, no organ seems fit. For it would seem necessary to perceive all the particulars of the two kinds to be assured of the regular concomitance among the two groups.

Dharmakīrti had proposed a solution to this problem according to which two classes are to be held coextensive just if the essential natures of their members were either identical or related as cause and effect. But his solution featured an "external" connection (*bahirvyāpti*) between the two classes, discovered by examination of some of the members of each of the two, and the resulting conceptual linking of the notions corresponding to each. Trilocana's objection to this procedure is that it contents itself with concepts and fails to get at connections in the actual world. He proposes instead an "internal connection" (*antarvyāpti*) which connects the universal properties of the two classes; he also suggests that this relationship among universals can be grasped by mental perception (*mānasapratyakṣa*). The point to emphasize is that the internal organ is being given the power to see directly into the structure of nature, whereas in the Buddhist view our thinking is confined to consideration of concepts and words.

How does the internal organ proceed in identifying this internal connection among universals? It does so, says Trilocana, by perceiving that the relation in question is free from vitiating obstructions (*upādhis*). Trilocana seems to feel that the internal organ just sees that there is no *upādhi* when it "views" the two universals in relationship to each other. Such an obstruction-free relationship between universals is, then, the "essential relationship" (*svābhāvikasambandha*). It is clear that Trilocana leans heavily on Dharmakīrti in developing this theory, even though it diverges from the Buddhist view in certain important respects.

19. BHĀSARVAJÑA OR BHĀVASARVAJÑA

We come now to the philosopher who may well represent the source of the most important schism in the Nyāya-Vaiśeṣika school.

If not the source, he is the first known proponent of a number of doctrines which diverge boldly from the accepted traditional views of all the authors we have so far considered. We review below (under the *Nyāyabhūṣaṇa* entry) some of these unorthodox theories. They are referred to often as the views of the "(Nyāya) ekadeśins," i.e., a section of the Naiyāyikas. Samasastry[1] notes that since, e.g., Sureśvara refers to these *ekadeśins* in his *Mānasollāsa*, accurately identifying one of their characteristic doctrines, this branch of Nyāya must antedate Bhāsarvajña. In any case, later Nyāya authors tend to see two main branches of their system, with Uddyotakara as the source of one, Bhāsarvajña of the other.

A Kashmiri[2] like Jayanta Bhaṭṭa, Bhāsarvajña must have flourished contemporaneously with him. Bhaṭṭa Rāghava remarks that Bhāsarvajña consulted one of Trilocana's works,[3] which is quite reasonable if we place Bhāsarvajña ca.A.D. 860 to 920.

In Bhāsarvajña's case his religious convictions are of great importance in assessing his contribution. It seems clear that this philosopher was a member of the sect of the Pāśupatas, a Śaiva sect which Ingalls[4] has likened to the Greek Cynics, for they practised similarly wild and odd behavior as a means of religious training. The prefix Bhā is, according to D. R. Sarma,[5] standard among the names of members of this sect. Bhāsarvajña holds several views characteristic of the Pāśupatas despite their evident divergence from Nyāya—e.g., the view that there are only 3 instruments of knowledge, probably the most obvious discrepancy in Bhāsarvajña's theory from standard Nyāya, is a view of the Pāśupatas. He is also credited with the authorship of a Pāśupata handbook, the *Gaṇakārikās*.[6]

Bhāsarvajña has been known for a long time as the author of the *Nyāyasāra*, a rather simple exposition of Nyāya tenets with a few special twists. The *Nyāyasāra* is more or less standard fare for Nyāya students, and has occasioned no especial excitement. Bhāsarvajña wrote a commentary on his own work called *Nyāyabhūṣaṇa*. It is the views of the "Bhūṣaṇakāra" that are identified as the primary locus of the unorthodox notions mentioned above. Bhaṭṭa Rāghava and Vallabha both attribute this commentary to Bhāsarvajña himself.[7]

The *Nyāyabhūṣaṇa* was thought to be lost. However, Anantlal Thakur writes[8] that an acquaintance, C. D. Dalal, has seen a manuscript of the work at Patan. "A friend is editing possibly the same manuscript, he continues. According to him (the friend), the work is called *Saṃgrahavārttika* in its colophon, and consists of 18,000 *granthas*. The author's name is Bhāvasarvajña, and its initial verse reads: 'Umāpatiṃ sarvajagatpatiṃ sadā praṇamya nirvāṇa-

damīśvaram param/ Gurūṃśca sarvānanu mokṣasiddhaye pravakṣyate nyāyasadarthasaṃgrahaḥ//'

The *Nyāyabhūṣaṇa* has now apparently been recovered, and was published in 1968. Professor Matilal's remarks prefacing his summary below will serve to indicate the present state of our knowledge of this work.[9]

NYĀYASĀRA

(Summary by Karl H. Potter)

The work has been edited several times, but is untranslated. References below are to pages in the edition by Abhyankar and Devadhar, Poona 1922 (B2505).

FIRST CHAPTER

1. (E1) Bowing to Śambhu (i.e., Śiva), the lord of the world, the author announces his intention to give a definitive account of the instruments of knowledge and what is different from them, for the instruction of students.

2. (E2) An instrument of knowledge is an instrument of direct experience (*samyaganubhava*). The word "direct" here excludes doubt and error.

3. (E2-4) Doubt is uncertain (*anavadhāraṇa*) judgment. It has 5 varieties: (1) same property, (2) many properties, (3) contrary views, (4) perceived, and (5) not perceived. In (1) we confuse a man with a post because they share properties. For (2) the example is "sound is eternal or it is noneternal," since it has a variety of specific qualities. For (3)—the sense organs are elemental, some say, but others deny it. (4) Water or a mirage. (5) Whether or not we see a ghost (*piśāca*).

4. (E4) Imagination and indefinite judgment are not classifiable as error, so they are included here under doubt. E.g., a man at a distance taken to be a post is imagination, while uncertainty may be felt about which species of tree one is confronting.

5. (E5) Misconception is false (*mithyā*) definite (*adhyavasāya*) judgment. E.g., the double-moon illusion, or dreaming of elephants.

6. (E5-7) An instrument of knowledge is what directly grasps an object in a way different from remembering it. Understanding it, one can differentiate it from the knower, the object of knowledge, and

from its result. The direct experience is valid knowledge (*pramā*). The knower is the locus of that experience, and its content is the object of knowledge.

There are 3 kinds of instruments of knowledge : (1) perception, (2) inference, (3) verbal testimony (*āgama*).

7. (E6-11) Perception is the means of direct immediate (*aparokṣa*) experience. It is of two kinds : yogic perception and perception of those who are not yogis.

Nonyogic perception grasps gross (*sthūla*) objects through their relation with the sense organs when aided by favorable conditions such as light, time, place, etc. Other kinds of entities are grasped by various relations (the exposition follows Uddyotakara, cf. pp. 307-08). Inherence and perceptible (*dṛśya*) absences are grasped by the relation of *viśeṣaṇaviśeṣyabhāva* or "qualifier-qualified relations," when such a relation takes as its referent relations of one of the other kinds and *its relata*. E.g., "the ground is void of any pot" or "the pot is not here on the ground," etc. There is grasping of inherence only sometimes —e.g., in "here there is inherence of color in the pot."

8. (E12-13) Yogic perception grasps objects which are far away spatially or temporally. It is of 2 kinds: in a disciplined state (*yuktāvasthā*), and not in a disciplined state (*ayuktāvasthā*). In the former kind of yogic perception one grasps all objects collectively without remainder through one's merit together with contact between the self and the inner cause (*antaḥkāraṇa*). In the latter the usual sort of sense object and other contacts have to take place, either fourfold, threefold, etc. as required (see p. 294), whereas in the disciplined-state kind only a twofold contact is needed. So-called *ārṣa* knowledge is included under yogic perception, since it is produced by exceptional merit of the sages.

9. (E13-15) Again, perception is of 2 sorts: propositional and nonpropositional. Propositional perception is demarcated through its having arisen from its description through relation with names, etc. E.g., "This Devadatta has a stick." Nonpropositional perception involves the appearance of the mere nature (*svarūpa*) of a thing, e.g., the judgment produced by the first contact with the eye, or yogic perception of the disciplined-state variety.

SECOND CHAPTER

10. (E16-17) Inference is the instrument of mediate experience which works through direct invariable concomitance (*avinābhāva*). This invariable concomitance is pervasion (*vyāpti*) of the

hetu by the *sādhya* according to their very natures (*svabhāvatas*).

11. (E17) Inference is of 2 kinds: positive (*anvaya*) and negative (*vyatireka*). Positive pervasion occurs between the universal corresponding to the *hetu* and the universal corresponding to the *sādhya*. Negative pervasion occurs between the absence of the one universal and the absence of the other one.

12. (E18) The *hetu* or *liṅga* is of 2 kinds : *dṛṣṭa* and *sāmānyatodṛṣṭa*. The former kind is used in proving objects fit to be perceived, while the latter is used to prove objects whose natures (*svabhāva*) are remote, e.g., the color of one's own eye.

13. (E19-22) Again, inference is of 2 kinds : for oneself, and for others. The latter kind is discussed at length. Inference for others has 5 members, each of which is defined. The second member (*hetu*) is of three varieties: only-positive, only-negative, and positive-negative. The criteria of the validity of the positive-negative kind of inference are 5 in number.

(1) The *h* must occur in *p*. This requirement is known as *pakṣadharmatva*. The *pakṣa* is something in which the *s* occurs, and *pakṣadharmatva* is defined as the locus-pervadingness (*vyāpyavṛttitva*) by the *h* of the *p*.

(2) The *h* must occur in the *sp*. The *sp* is a thing which is qualified by *s*, and "occurrence in *sp*" means occurrence of *h* in all or part of *sp*.

(3) Exclusion of *h* from *vp*. The *vp* is a thing qualified by a property which excludes *s*, and "exclusion from *vp*" means nonoccurrence of *h* in all of the *vp*.

(4) The *h*'s occurrence in *p* must be unsublated. That is to say, it must not be the case that there is an instrument of valid knowledge (*pramāṇa*) which proves the *h* not to occur in *p*.

(5) There must not be another *h* such that it proves the contradictory of *s* and yet it satisfies (1-3) above. This requirement is known as *asatpratipakṣatva*.

14. (E22) A *hetu* is of two kinds, depending on whether it occurs in all or only a part of the *sapakṣa*. For example, "sound is noneternal, because it is an effect" is of the former kind, while "sound is noneternal, because it is grasped by an external sense organ belonging to an ordinary person like me and when it possesses a universal" is of the latter kind.

15. (E23) Only-positive inference is where *h* pervades *p*, occurs in *sp*, but no *vp* is known. It has 2 kinds : (1) as in the following inference : "the unseen subject of a lawsuit is perceptible to someone, since it is an object of knowledge, like something in the palm

of one's hand"; (2) as in the inference: "the unseen subject of a lawsuit is perceptible to someone, because it is not perceptible according to the Mīmāṃsakas, like the self, pleasure, etc."

16. (E23-24) Only-negative inference is where *h* pervades *p*, *sp* is unknown, and *vp* is completely excluded from *h*. E.g., "Every effect has an omniscient creator, because it is transitory; whatever is not produced by an omniscient creator is not transitory, such as *ākāśa*." Only-negative inference can also be phrased using the word *prasaṅgāt* (and having the effect of *tarka*): "This thing is not without a self, since the result (*prasaṅga*) would be that a living body would be without breath, like a lump of clay."

17. (E24-26) The next topic is that of fallacies of the *hetu*. Bhāsarvajña says there are 6 varieties:

(1) *Asiddha*. This occurs when it is doubtful whether the *hetu* overlaps the *pakṣa*.

(2) *Viruddha*. Here the *hetu* occurs in both the *pakṣa* and the *vipakṣa*.

(3) *Anaikāntika*. Here the *hetu* occurs in the *pakṣa*, the *sapakṣa*, and the *vipakṣa*.

(4) *Anadhyavasita*. Here the *hetu* occurs in the *pakṣa* but nowhere else, and thus cannot prove the *sādhya*.

(5) *Kālātyayāpadiṣṭa*. This fallacy is committed when the *hetu's* occurrence in the *pakṣa* is sublated by a valid instrument of knowledge.

(6) *Prakaraṇasama*. Here the *hetu* satisfies the "threefold mark" — i.e., requirements (1)-(3) for a valid inference listed in section (13) above — but it proves both the *sādhya* and its contradictory.

The following 6 sections treat the above 6 fallacies in greater detail.

18. (E26-28) The *asiddha* fallacy has several subdivisions.

(1) *Svarūpāsiddha*. Example: "Sound is noneternal, because it is visible."

(2) *Vyadhikaraṇāsiddha*. Example: "Sound is noneternal, because it creates words."

(3) *Viśeṣyāsiddha*. Example: "Sound is noneternal, since it is a universal and is visible."

(4) *Viśeṣaṇāsiddha*. Example: "Sound is noneternal, because it is visible and has a universal."

(5) *Bhāgāsiddha*. Example: "Sound is noneternal, because it requires effort."

(6) *Āśrayāsiddha*. Example: "There is matter (*pradhāna*), since everything has size."

(7) *Āśrayaikadeśāsiddha.* Example : "Matter, selves, and God are eternal, since they are not products."

(8) *Vyarthaviśeṣyāsiddha.* Example : "Sound is noneternal, since being a product it possesses a universal."

(9) *Vyarthaviśeṣaṇāsiddha.* Example : "Sound is noneternal, since possessing a universal it is a product."

(10) *Saṃdigdhāsiddha.* Example : (When someone who has not clearly discriminated smoke from steam says) "This place is fiery because it's smoky."

(11) *Saṃdigdhaviśeṣyāsiddha.* Example : (When under the same conditions as in section 10 one says) "This place is fiery, because possessing a universal it is smoky."

(12) *Saṃdigdhaviśeṣaṇāsiddha.* Example : (Conditions as in the previous two cases:) "This place is fiery, because it is smoky and has a universal."

An *asiddha* fallacy may be conceived to be so by both disputants or one only.

19. (E28-30) The *viruddha* fallacy has 2 major subdivisions, and each of these has 4 further divisions. The major subdivision is between cases of *viruddha* where there is a *sapakṣa*, and cases where there is not.

The further 4 divisions of each subdivision, are as follows:

(1) Where the *hetu* pervades both *pakṣa* and *vipakṣa*, e.g., "Sound is eternal, because it is an effect."

(2) Where the *hetu* pervade the *pakṣa* and occurs in a part of the *vipakṣa*, e.g., "Sound is eternal, because while having a universal it is graspable by an external sense organ belonging to an ordinary person like me, etc."

(3) Where the *hetu* occurs in parts of both the *pakṣa* and the *vipakṣa*, e.g., "Sound is eternal, because it requires effort."

(4) Where the *hetu* pervades the *vipakṣa* and occurs in part of the *pakṣa*, e.g., "Earth is eternal, because it is a product."

Objection : The account of *viruddha* overlaps that of *asiddha*, since four of the eight varieties of *viruddha* are cases where the *hetu* occurs in only part of the *pakṣa*, and that is the mark of *asiddha*. *Answer* : There is no fault, for an argument may commit more than one fallacy at a time.

20. (E30-31) The *anaikāntika* fallacies are divided in a manner similar to that employed in classifying the *viruddha* fallacies. Thus there are (1) *h* pervades *p*, occurs in parts of *sp* and *vp*; (2) *h* pervades *p* and *sp*, occurs in part of *vp*; (3) *h* pervades *p* and *vp*, occurs in part of *sp*; etc.

21. (E31-32) Varieties of the *anadhyavasita* fallacy :

(1) Where *h* pervades *p*, but neither *sp* nor *vp* are known, e.g., "Everything is noneternal, since it exists."

(2) Where *h* occurs in a part of *p*, and *sp* and *vp* are unknown, e.g., "Everything is noneternal, since it exists."

(3) Where *h* pervades *p* but is lacking from both *vp* and *sp*.

(4) Where *h* occurs in part of *p* but is lacking from both *vp* and *sp*.

(5) Where *h* pervades *p*, no *vp* is known, and *h* is lacking in *sp*.

(6) Where *h* occurs in part of *p*, no *vp* is known, and *h* is lacking in *sp*.

22. (E32-34) Varieties of *kālātyayāpadiṣṭa* :

(1) Where perception is contradicted, e.g., "Fire is not hot, because it is a product."

(2) Where inference is contradicted, e.g., "Atoms are not eternal, since they are material."

(3) Where verbal authority is contradicted, e.g., "Wine is to be drunk by Brahmins, since it is a fluid substance, like milk."

(4) Where perception is partially contradicted, e.g., "All fire is not hot, because it is colored."

(5) Where inference is partially contradicted.

(6) Where verbal authority is partially contradicted.

23. (E34-35) An example of *prakaraṇasama* is "Sound is noneternal, because it is different from the (class) product of *p* and *sp*, like *sp*". Here the *h* satisfies the first three of the five requirements of validity (see section 13 above), but is fallacious nevertheless since the same *h* will also prove equally well the hypothesis "sound is eternal".

Another type of case is here called *viruddhavyabhicārin*. It occurs when two *hetus* are both satisfactory but prove opposite *sādhyas*. E.g., (a) "*Ākāśa* is eternal, because it is a nonmaterial substance, like a self," and (b) "*Ākāśa* is noneternal, because it is grasped by an external sense organ belonging to an ordinary person like myself." But Bhāsarvajña adds that this last, like a type of fallacy others dub *anyatarāsiddha*, is a fallacy only in dependence on the predilections of the particular parties involved.

24. (E35-39) Returning to the discussion of the members of an inference, the author turns to the third member, the example, which is the naming of instances, either positive or negative or both. He lists a number of fallacies of the example. They include cases where a proper relation between the example and the other terms is lacking; they also include cases where that relation is doubtful.

25. (E39-40) The fourth member is that which states concern-

ing the *hetu* that it pervades the *pakṣa* by comparing (*upamāna*) it with the example, when it is established that there is invariable concomitance between the *hetu* and the *sādhya* as shown by the examples. There are two aspects of this member, corresponding to the positive and the negative examples respectively.

26. (E40-41) The fifth member is the repeating of the expression which states the *pratijñā*. It is not useless, for it is intended to show that the contrary position to the hypothesis is not tenable; in this way it has a distinct function to perform.

27. (E41-43) There are 2 kinds of controversy : dispassionate and passionate. The former kind is known as discussion (*vāda*). Gautama's definition of it is quoted. It normally involves two parties with opposing theses, but may not, as in the case of a discussion between a teacher and his pupil. The passionate kind is the controversy involved in a debate, where the aim is victory and not understanding. It may on occasion be practised by a dispassionate truth-seeker set on ferreting out confusing debating tricks which block the pursuit of understanding.

28. (E43-66) Sophistry is passionate controversy where tricks such as quibble, futile rejoinders, and the various ways of losing an argument are practised both in defending one's own position and in attacking the other party's view. Cavil occurs when these tricks are used only in attacking the other party.

Gautama's definitions of quibble are quoted, with its 3 kinds distinguished. Futile rejoinders and ways of losing an argument are reviewed. This discussion essentially follows that of Vātsyāyana.

CHAPTER THREE

29. (E66-67) Verbal authority is an instrument of direct experience gotten through conventional meanings (*samaya*). It has 2 kinds: where the object is seen, and where it is not. The validity of the first kind is known from the practical results of activities based on it. The validity of the second kind is dependent on the reliability of the authority, and is thus known from inference.

30. (E68-71) It is not known on the basis of eternal meanings, since words are not eternal. This can be shown by many arguments. E.g., if words are eternal then they will either be apprehended at all times or never. And the opponent may not argue that the fact that words are heard only occasionally is due to the absence of their manifesting causes (*abhivyañjaka*), the problem is to know what this manifesting cause is, and no suitable candidate can be found. E.g., if it

be supposed to be contact with air, then sounds will be heard all the time. The cause of the occurrence of sounds must be a producing (*kāraka*) cause, so that a certain sound—rather than all sounds or some other sound—is produced.

31. (E71) Comparison, presumption, concurrence and tradition, as well as negation (as an instrument) are all included in these 3 instruments of knowledge, viz., perception, inference, and verbal testimony.

32. (E71-74) Three accounts of comparison are mentioned. (1) "A *gavaya* is like a cow"—this version of comparison can safely be included under verbal testimony. (2) "My cow is similar to this animal"—but this is a case of memory, for when we saw the cow we apprehended its potential similarity to things like it and remembering that we form the judgment now. *Objection* : How can we recognize the similarity between two objects only one of which is known ? *Answer*: It is nonpropositional (*nirvikalpaka*) judgment whose specific correlate (*pratiyogi*) is unknown but then becomes known later on. And this function of memory in making propositional what was previously apprehended nonpropositionally is not unique. E.g., when we have visited a house and noted that five or six people were there and are later asked "was Devadatta there," we can answer "no" even though we did not actually notice Devadatta's absence at the time. (3) The judgment produced by comparison is "This animal is named *gavaya.* " But this too is a variety of verbal testimony. When someone says "the animal called *gavaya* is like a cow," this produces knowledge about the meaning of a term as much as the more direct "this animal is called *gavaya*. It is not necessary that we actually perceive the *denotatum* of a word to understand its meaning.

33. (E74-77) To explain away the contradiction of this view, denying that comparison is a separate instrument, with Gautama's, which holds it to be separate, Bhāsarvajña argues that in other instances categories which are mentioned separately are also included under other headings, and so it is here : Gautama in explaining verbal testimony is intending to show the kind of use to which that instrument can be put. Some say that verbal testimony merely corroborates what is already known through perception of inference, and is therefore not a separate instrument. It does not give us knowledge about the meanings of words by itself, since to understand the meaning of a word we are required to comprehend what objects the words refer to by appeal to some other instrument. It is to answer this view that Gautama mentions comparison in his *sūtra*—it is not that comparison is a fourth instrument, but that it constitutes a parti-

cularly important function of verbal testimony, namely its function in giving us knowledge of the conventional meanings of words whose objects are not perceptible or inferrible. It is true that Gautama defends the validity of comparison, but so he does also of presumption, so this does not show that he thought it was an independent instrument. Likewise, though it is true that Gautama explicitly argues that comparison is not inference, he does not argue that it is not verbal testimony. As for Gautama's explicitly saying that there are four, and not three, instruments of knowledge, Bhāsarvajña says that he did not state his view carefully. For example, in dealing with the part and whole he does not state his view carefully; he seems to say that the whole cannot exist at all, but really means only that it must exist separately from the parts.

34. (E77-78) Presumption is to be included under inference, since there is invariable concomitance involved. *Objection* : But in our judgment that Devadatta is fat we are making a judgement about an individual case. How can this be a matter of inference, which deals with generalities? *Answer* : The type of inference in question is the only-negative kind, which operates when there are no similar instances. And one cannot reject this kind of inference merely on the ground that one of the two kinds of example cannot be given, since by parity of reasoning one ought then also to reject only-positive inference, which is absurd.

36. (E78-80) Negation (as an instrument) is classified under either verbal testimony, inference, or perception according to cases. *Objection* : Negation cannot be perception, since perception requires sense-object contact and by hypothesis there is no object to contact. *Answer* : No, there is an object, namely an absence. *Objector* : Still, there cannot be contact between a sense organ and an absence. *Answer* : It is not required, either by us or by the opponent, that there be simple contact: there are half a dozen kinds of relation which may be involved in perception.

37. (E80) Tradition, along with gesture, is included in verbal authority.

38. (E81) Knowledge of the objects of knowledge (*prameya*) leads to perfection (*niḥśreyasa*). The objects are divided into those to be attained, the means to them, those to be avoided, and the means to avoiding them.

39. (E81-82) What is to be avoided is future pain, which has 21 varieties: the body, the 6 senses, their 6 objects, the respective 6 kinds of judgment, pleasure, and pain. Each of these is either the locus, the concomitant, or the cause of pain.

40. (E82-83) The means of getting pain are: imperfect knowledge (*avidyā*), desire (*tṛṣṇa*), merit, and demerit. Imperfect knowledge is what is opposed to self-knowledge, along with traces, etc. Desire is the cause of future lives. Merit and demerit are the causes respectively of pleasure and pain.

41. (E83) What is to be attained is the cutting off of pain, i.e., the absolute cessation of any relation with pain.

42. (E83-95) The means to the cutting of pain is knowledge of reality, whose content is the self. Bṛhadāraṇyaka Upaniṣad II.4.5 is quoted, along with Chāndogya Upaniṣad VII.1.3. Selves are of 2 kinds—higher and lower. The higher type is God, omnipotent, omniscient, creator of the universe. He is to be known through inference and verbal testimony. The inference to an intelligent agent from the fact that the earth is a product is offered. By elimination it is then shown that the agent must be God. The lower self is he who enjoys the fruits of *saṃsāra*. The self is also inferred as the locus of judgments, etc., and again by elimination other possible loci are excluded. The facts of memory, etc., refute the thesis that there is no self and the thesis of momentariness of the Buddhists. The self is all-pervading because a locus for merit, etc., which produce motions in the air is required, and because the yogi can take on many bodies in various places at once. A variety of quotations from the *Yogasūtras* are cited to show that knowledge of God is helpful in attaining liberation, through removing *kleśas*, etc. *Kleśas* are defined and summarized as passion, hate and delusion. The *yamas* and *niyamas* (the first two stages of Patañjali's yoga) are discussed, along with other categories of the Yoga system.

43. (E95-98) Through yoga the seeker eventually gets a vision of Śiva, and thus attains liberation. Some say that liberation is the state of the self when all its specific qualities have been cut off: then it is like *ākāśa* during *pralaya*. Both pleasure and pain must be ended, according to this view, since they are invariably concomitant and one cannot lose one without the other. But others (including presumably Bhāsarvajña) say that no discriminating person will strive for such a state. We know from verbal authority that the liberated person enjoys pleasures and is conscious (and Bṛhadāraṇyaka Upaniṣad III.7.28 is cited).

Objection: Are the qualities of pleasure and consciousness eternal or noneternal qualities of the self? If eternal, then we are already free; if noneternal, then the freed self may lapse back into bondage. *Answer*: They are eternal, and it is because of demerit and

frustration that we do not perceive the eternal relationship between consciousness and pleasure.

Objection : The knowledge which one gets at liberation is a product, and like all products it is noneternal and the liberated self will eventually lapse back into bondage. *Answer* : Not every product has an end. E.g., posterior absence is a product but has no end. *Objector* : But this final knowledge, unlike posterior absence, is a positive thing. *Answer* : No, for the relation between a judgment and its content is not a member of any of the 6 categories. If such a relation were allowed to belong to a category, then there could be no relation between inherence and our knowledge of it. *Objector*: The content of a judgment is produced by *karma* in dependence on *adṛṣṭa*, and the knowledge of that content is produced in turn by it. *Answer* : No, for then God's knowledge could have no content, since God has no *adṛṣṭa* and cannot be dependent on it. Thus it is established that liberation is a state of blissful consciousness.

NYĀYABHŪṢAṆA (or SAṀGRAHAVĀRTTIKA ?) on NYĀYASĀRA

Summary by Bimal Krishna Matilal

Bhāsarvajña's *Nyāyabhūṣaṇa* holds a very unique place in the history of Nyāya-Vaiśeṣika philosophy. The actual text was supposed to be lost for a long time since no manuscript was discovered. But the recent publication of the entire text came as a pleasant surprise to the world of scholars. The editor notes in the preface that he had a glimpse of the actual manuscript only once, in the possession of Svami Satyasvarupa Sastri. After obtaining a grant from the Government of India to publish it, the editor approached Mr. Sastri again, at which time the latter did not allow him to see the manuscript but gave him only a prepared transcript. The present edition is based upon this transcript.

The odd nature of this story raises some suspicion. Besides, the previous information about a Jain Bhandar possessing the manuscript is ignored by the editor.

The book is written in elegant philosophical Sanskrit. It is rather unfortunate that the edition is full of printing errors (some of which are quite confusing and misleading). But almost all the known references and citations of Bhāsarvajña can be located in this book.

Originally the book was written as an elaborate commentary on Bhāsarvajña's own manual *Nyāyasāra*. But in fact the commen-

tary itself was Bhāsarvajña's masterpiece. It proves undoubtedly that Bhāsarvajña was a great thinker of his time. He preceded Udayana by a short time. He was a great innovator in the Nyāya system. Many of his interpretations and views are sometimes termed "unorthodox" in the Nyāya tradition.

Instead of giving a summary of the whole text (which seems to be a very difficult task), I shall try to point out the important philosophic problems discussed in the book and some interesting theories which the author independently held.

Textual citations to the edition by Swami Yogindrananda, Varanasi 1968.

CHAPTER I

(Pp. 1-11) First, *pramāṇa* or instrument of right knowledge is defined. Bhāsarvajña holds that there are only 3 instruments of knowledge as opposed to the orthodox Nyāya view that there are 4. The 3 means are perception, inference, and verbal testimony. Other means of knowledge noted by other philosophers, according to Bhāsarvajña, are to be included under these 3. Bhāsarvajña argues later (p. 81) with great ingenuity that his system of 3 instruments of knowledge does not in fact go against Gautama's system of 4. Gautama first spoke of 5 sense organs in NS I.1.12, and then in another place accepted the internal organ as the sixth sense-organ. This shows, according to Bhāsarvajña, that Gautama's enumeration of items was *not always* meant to be exact or exhaustive or even mutually exclusive of other lists. Thus, although he mentioned 4 instruments of knowledge he would not have denied the fact that there are only 3, the third in his list being capable of being included in the fourth, verbal testimony.

(Pp. 26-32) Bhāsarvajña discusses 8 different theories regarding the status of the content of erroneous judgment. This is rather interesting because Vācaspati Miśra, in a similar context in *Tātparyaṭīkā*, mentions only 5 different theories or *khyātis* (see summary of *Tātparyaṭīkā* below, sections E85-91).

The first theory is called *akhyāti* and is ascribed to the Mādhyamika school. It maintains that an erroneous judgment is without any objective content as its support (*nirālambana*) This view is rejected with the following argument: If there were no objective basis, how could one distinguish between one error and another, or between error and absence of cognitive states in general? The objective

contents of judgments are, in fact, "distinguishers" of the individual judgments.

..The second theory is called *asatkhyāti*, and says that the object appearing in error is, in fact, nonexistent (*asat*).

The third theory, called *prasiddhārthakhyāti*, states that the object which appears in an erroneous judgment (e.g., the snake in a snake-rope confusion) is a "well-established" (*prasiddha*), i.e., real object. The said snake is, however, short-lived like a flash of lightning. It exists as long as the error continues.

The fourth theory (*alaukikārthakhyāti*) states that the object causing the erroneous judgment must be an extraordinary thing, since it is not only short-lived as electric flashes but also does not perform its function properly. E.g., the water in a mirage does not quench our thirst.

The fifth theory (*smṛtipramoṣa*) is held by the Prābhākaras. They maintain that the perceptual error expressed as "this is a snake" is, in fact, partly confused with the memory of the snake, but the perceiver is not aware at that moment that it is a memory.

The sixth theory (*ātmakhyāti*), held by the Yogācārins, states that there are no external objects apart from the cognition itself. Thus, in error the internal form of the judgment itself is externalized as the "snake.",

The seventh theory (*anirvacanīyakhyāti*) says that the snake appears in error neither as existent nor as nonexistent. If it were existent, then the said judgment would have been a true one. If nonexistent, then it should not have produced such tangible results as the fear of the snake and other reactions in the perceiver. Thus, the snake in the erroneous judgment must have an indeterminable status.

The eighth theory is called *anyathākhyāti* and is upheld by the Nyāya school. Bhāsarvajña supports this theory and rejects the rest.

(Pp. 32-38) Skeptics argue that all cognitive states are merely causes of doubt, and that neither knowledge nor error can ever be possible because we can never be sure about the truth or falsity of a cognitive state.

This view is first analyzed in detail and then proven to be untenable. Sometimes the truth of a cognitive state is established by the nonorigination of contradiction; sometimes it is established by the successful action that follows with regard to the object.

(Pp. 38-43) The question whether the validity of knowledge is intrinsic or extrinsic is raised and Bhāsarvajña eventually supports the theory of extrinsic validity (*parataḥ-prāmāṇya*).

(Pp. 49-62) An instrument of knowledge is that which is instrumental (*karaṇa*) in the realization of true cognition. The notion of "instrumentality" (*karaṇatva*) involved here has been explained differently by different philosophers. Bhāsarvajña's interesting and elaborate discussion touches the areas of logic, grammar, and epistemology. His definition of "instrumental" is given on page 67.

(Pp. 84-100) The author first justifies his definition of perception given in the *Nyāyasāra* (see previous summary, p. 401). He then proceeds to examine the definition found in Nyāyasūtras I.1.4. This *sūtra* is interpreted and justified, and Dignāga's critique of the Nyāya theory of perception is discussed and answered.

Bhāsarvajña says that the word *avyapadeśya* (in Gautama's *sūtra*) indicates that Gautama defined the nonpropositional (*nirvikalpaka*) type of perception. Nonpropositional perception is at the root of all other cognitive states such as propositional perception and inference. All the yogis try to gain this nonpropositional type of perception. But propositional perceptual judgments are also accepted in the Nyāya school, and Gautama supports this kind of perception, not in NS I.1.4, but in such *sūtras* as NS I.1.14 and II.2.65 Bhāsarvajña's interpretation is quite different from the traditional interpretations of NS I.1.4.

(Pp. 104-53) Since the Nyāya theory of perception assumes the reality of the whole as well as of the parts, Bhāsarvajña develops a very interesting discussion of this problem. He quotes extensively from Dharmakīrti's *Pramāṇavārttika* as well as from other Buddhist writers in expounding the opponent's view. Bhāsarvajña justifies the orthodox Nyāya view that the whole is not merely an integration of parts but is separately existent, in contradistinction to the Yogācāra Buddhist doctrine of the unreality of wholes and parts.

This discussion leads to a consideration of the problem of variegated color (*citrarūpa*). Bhāsarvajña argues that variegated color can be regarded as one type of color belonging to the whole which arises from material parts which have several different colors.

A section of the Yogācārins holds the theory of *citrādvaitavāda*, according to which one individual (nondual) cognitive state can have various "forms." This view is briefly explained and then refuted. Bhāsarvajña quips: If the Buddhist accepts the *citrādvaita*, why does he take so much trouble to reject the *brahmādvaitavāda* of the Vedānta school? The Nyāya school is fundamentally pluralistic and hence rejects any form of *advaita*.

The classic argument of Dharmakīrti that the judgment and its object are in fact identical because they are always realized to-

gether (*sahopalambhaniyama*) is analyzed and criticized. Bhāsarvajña's main point is that it is impossible to establish beyond reasonable doubt that the judgment and its object are *always* realized together.

The Yogācārins argue that a judgment is always revealed by itself, not by another judgment. Bhāsarvajña maintains that a judgment is revealed by another judgment. Some Yogācārins introduce a distinction between the object that is received or grasped (in judging) and the object that is ascertained or ascribed (*grāhya* and *adhyavaseya*). And thus, they maintain, the "receiver," i.e., the judgment, is actually identical with the first type of object, the "receivable". Bhāsarvajña rejects the said distinction between two types of object, the receivable and the ascribable. In this way, the Yogācāra thesis of identity of judgment and its object is rejected and the reality of external objects is established.

Some Buddhists argue: All cognitive states, are, like dreams, without any "objective support" (*ālambana*). Bhāsarvajña follows Kumārila in rejecting this theory. Several verses are quoted from the *Ślokavārttika*. Bhāsarvajña takes great care to distinguish between our judgments in our dreams and our judgments when we are awake.

Dharmakīrti and Prajñākaragupta argue as follows: If the external object were different from the judgment, how could it be revealed by the judgment? If this revealing of the object by the judgment is due to some relation between them, then the question arises whether that relation is also a different entity apart from the judgment and the object. If it is different, then we need another relation to relate such a relation to the judgment and the object. And in this way, we are led to an infinite regress.

Bhāsarvajña rejects this argument, saying that ascertainment reveals the object as certain without revealing itself (the judgment) as certain. Since in such cases of ascertainment the Buddhists do not admit an infinite regress to make the ascertainment certain, the Nyāya likewise does not accept the alleged infinite regress, even though it maintains that the object is different from the judgment.

It is argued further that even the judgment in our dream is not totally without objective support. Even if the objects of our dream judgments do not exist, the objects of our waking judgments do exist for one group would be unintelligible without the other. Thus it is reasonable to admit the reality of external objects. They are not just the creation of our imaginative construction.

(Pp. 154-65) Bhāsarvajña offers a number of original suggestions to modify the Vaiśeṣika system of categories. The 24 qualities of the Vaiśeṣika and the category of motion are, according to Bhāsarvajña,

not different in character. Thus motion can belong to the category of quality.

Number is not a separate quality for Bhāsarvajña. The number *one* (*ekatva*) is merely nondifference (*abheda*). Higher numbers imply simply difference.

Size (*parimāṇa*) is also not a separate quality. The notions of size such as "big" or "small" depend upon our comparisons between objects.

Separateness (*pṛthaktva*) is also not a quality. It simply equals difference, which belongs to the category of absence.

Disjunction is, according to Bhāsarvajña, merely the absence of contact, not a separate quality.

Similarly, farness and nearness are not, according to Bhāsarvajña, separate qualities.

Impetus (*vega*) is also not a separate quality. It is indistinguishable from actual motion. "It moves with impetus" means simply that it moves. The traditional Vaiśeṣika system maintains that impetus is a quality by which the body continues to move long after the original impact or push from another body. Traditional Vaiśeṣika also maintains that *sneha* or viscidity is a quality which belongs to water only. But Bhāsarvajña says that viscidity belongs not only to water but also to such solid substances as butter and wax.

(Pp. 162-87) General problems about perception are discussed. The Buddhist definition of perception (as given by the Dignāga-Dharmakīrti school) is analyzed in detail and criticized. The 6 types of sense-object-contact are discussed and justified. The yogic variety of perception is also discussed in detail. Bhāsarvajña emerges as a great advocate of this variety of perception.

Following the Nyāya school, Bhāsarvajña justifies the validity of propositional perceptual judgments by answering criticisms of the Buddhists.

CHAPTER II

(Pp. 159-209) The definition of inference and its threefold division as found in Nyāyasūtra I. 1.5 are discussed. Various interpretations of the threefold classification of inference given by previous writers such as Uddyotakara are mentioned.

Some people explain that *sūtra* I.1.5 gives the triple character of the *hetu*, viz., presence of the *h* in the *p*, presence of the *h* in *sp*, and absence of *h* from *vp*. Bhāsarvajña rejects such interpretation on the

ground that it would be irrelevant to talk about the *hetu* only when the context demands a discussion of inference proper.

The *Nyāyasāra* definition of an inferential judgment-product (*anumiti*) is explained.

The Buddhist argues that all inference is, in some sense, false since it reveals only universals (*sāmānya*) which are always imaginative constructions. Bhāsarvajña discusses and rejects this argument, quoting extensively from Dharmakīrti, Prajñākara, and Dharmottara. The Buddhist again: When the lustre of a gem is mistaken for the gem our mistaken judgment nevertheless leads to successful activity, viz., obtaining of the gem. Similarly, an inferential judgment-product may not reveal the real object (e.g., fire) but it nevertheless leads to successful activity (viz., finding fire on the other side of the mountain.) Thus it is argued by the Buddhist that inference can be called an instrument of valid knowledge even though it does not reveal a real object. Bhāsarvajña rejects this argument. If successful activity were the sole criterion for the validity of a judgment, then validity could be ascribed even to doubting judgments (*saṃśaya*)

Both Dharmakīrti and Prajñākara argue that the validity is due to conventional or ordinary usage and experience (*vyavahāra*). Our conventions lead us to believe that the same object which we perceived before is before us now, and thus the validity of the previous judgment is established. Bhāsarvajña says: If convention establishes the said validity, then we need to ask the same question about the validity of that very convention or "ordinary" experience. If such an experience is accepted as valid, what establishes its validity? If another convention, then we have an infinite regress. It is to be noted that conventions cannot be said to be intrinsically valid, since not all our ordinary experiences are uncontradicted.

(Pp. 210-23) The Lokāyata school tries to refute the validity of inference in several ways. (1) Inference is invalid because it deals with the metaphorical sense of the object. If the object to be proved is already proven then there is no need for inference. And if not, then we call something an "object to be proved" (*sādhya*) only as a metaphor. (2) Suppose the object to be proved in the inference "this mountain possesses fire" is *fire*. Now, *fireness* is a well-established property and hence cannot be established by this particular inference. And the particular fire on that mountain cannot be established by inference since the relation of pervasion (*vyāpti*) holds between universal properties only. (3) The relation of pervasion can be grasped neither by perception nor by inference. Hence inference based on

such a relation is impossible. (4) Further, in most inferences it is possible to think of a contradictory hypothesis.

Bhāsarvajña rejects all these arguments. "Object to be proved" (*sādhya*) and "inferential mark" (*hetu* or *liṅga*) do have their primary senses in the context of inference, not just their metaphorical senses. And "subject of the inference" (*pakṣa*) means the locus where the inferred property is desired to be proved, or where the presence of the inferred property is doubted.

Pervasion holds between the universal properties *smokiness* and *fieriness*. With the help of such a relation we infer the presence of a particular fire in a particular place.

Different theories regarding how we know the pervasion relation are offered and criticized.

Some say: Pervasion between *smokiness* and *fieriness* is ascertained through observation, i.e., perception of a number of instances. This view is rejected because no one can be sure how many instances one may need in order to know the relation of pervasion.

Others say: Pervasion between *smokiness* and *fieriness* is obtained through a kind of mental perception (*mānasapratyakṣa*). This view is also rejected because if a mental perception revealed the pervasion relation between all cases of fire and all cases of smoke, the person who possessed such a perception would have to be omniscient.

Another view maintains: By observing a few cases of co-occurrence of smoke and fire we can safely assume the pervasion relation between *smokiness* and *fieriness*. This is also rejected. Although most solid things are cut by iron, yet there are some kinds of things belonging to the class of solids which cannot be cut by iron. This indicates that mere concurrence of properties is not always a safe guide for ascertaining the pervasion relation.

Bhāsarvajña's own view is this: We perceive that smoke occurs in the same locus with fire and we also perceive that smoke does not occur in a place where fire does not occur. This observation of agreement in presence and agreement in absence (*anvayavyatireka*) leads to the realization of the general relation of pervasion between *smokiness* and *fieriness*. Just as the property *cowness* is perceived as we start perceiving a few individual cows, so also we perceive the pervasion relation in a similar manner.

(Pp. 229-73) While discussing the inferential mark (*hetu* or *liṅga*), Bhāsarvajña discusses the problem of universals. The Buddhist argues: Universals are imaginative constructions (*kalpanā*). Bhāsarvajña's main opponent in this section is Dharmakīrti. Most of the citations and arguments are from the *Pramāṇavārttika*. The

important connection between the pervasion relation and the notion of universal property is also discussed here in detail.

Common nouns like "cow" and "man" express, according to the Nyāya view, the individual as qualified by the universal property, here respectively *cowness* and *manness*. When we learn the meaning of the word "cow" as the individual qualified by *cowness*, we can apply the word to any individual in which *cowness* is present. But a proper noun like "Yudhiṣṭhira" is not applicable to another individual except the one with regard to which we have learnt the word.

The Dignāga school holds that universal is a form of double negation, that "cowness" only means "what is not a non-cow." Bhāsarvajña discusses this argument in detail, quoting frequently from *Pramāṇavārttika*. He rejects the Buddhist view and argues in favor of the existence of a universal property *cowness*.

A universal property like *cowness* may exist everywhere (i.e., be all-pervasive) or it may only exist in the individual cows. If the latter alternative is accepted, then when a new cow is born in a place *cowness* will have to move from its previous place to the new place to be associated with the new cow. If the former alternative is accepted then everything could be called a cow because *cowness* will be present in it. Such criticisms from the Buddhists are answered. Some Naiyāyikas say that *cowness* exists only in the individual cows (not everywhere) and such is the special nature of a universal property such as *cowness* that it can be associated with any new cow that is born without "physically" moving from its former locations. Others hold that *cowness* is all-pervasive, but it is only manifested when it *inheres* in an individual. Thus, everything cannot be called a cow because *cowness* does not inhere in everything.

Bhāsarvajña concludes that Dharmakīrti's objection that the meaning of a word cannot be the individual object because meaning is a "social" (or "conventional," *vyavahāra*) fact, can be met in the following way. There are 2 types of meanings, (1) express meaning or denotation (*vācya*), and (2) implied meaning or connotation (*gamya*). The express meaning of "cow" is an individual cow as qualified by *cowness*. Its implied meaning is the exclusion of what is a non-cow. The express meaning of "not a non-cow" is the individual qualified by the exclusion of what is a non-cow, and its implied meaning is *cowness*. Besides, Bhāsarvajña argues, without universal properties like *couness* it would be impossible to introduce a natural classification of empirical objects.

(Pp. 273-81) The school of Bhartṛhari posits an entity called *sphoṭa*, which is the meaning-bearing unit distinct from the audible

sounds or letters. While discussing inference for others (*parārthānumāna*) Bhāsarvajña discusses the concept of *sphoṭa*. He rejects this concept and maintains that the cluster of letters or audible sounds makes up a word and the cluster of words makes up a sentence. Pāṇini's rule I.4.14 is quoted to justify this position. Instead of saying that the cluster of letters manifests the *sphoṭa* which expresses the meaning, one might as well say that the cluster of letters directly manifests the meaning.

Different theories about the nature of the sentence (*vākya*) are examined and analyzed. The Nyāya view that the cluster of words makes up a sentence is established. Bhāsarvajña supports also the *anvitābhidhāna* theory, according to which sentence meaning is derived from the words which are first syntactically connected to generate the required meaning.

(Pp. 282-85) While discussing the *Nyāyasūtra* definition of the hypothesis or proposition to be proved in an inference (*pratijñā*) (NS 1.1.33), the Buddhists suggest that all proposition-expressing sentences can be construed as containing an implicit quantificational particle "only" (*eva*). Since the meaning of this particle can be of 3 types, they argue, the meanings of sentences must also be explained in 3 different ways. Bhāsarvajña quotes from *Pramāṇavārttika* and criticizes the Buddhist view by referring back to Uddyotakara (here Tamori). The Nyāya view says that not all proposition-expressing sentences have an "only" implied in its meaning. To suppose that the simple assertion "the lotus is blue" (*nīlam utpalam*) has an "only" implied in its meaning is a gross misinterpretation of the sentence.

(Pp. 287-99) In the *Nyāyabindu*, Dharmakīrti talks about, 3 types of *hetu*: (1) *hetu* as effect (*kārya*): (2) *hetu* as essential nature (*svabhāva*), and (3) *hetu* as nonapprehension (*anupalabdhi*). E.g. for (1), "here there is fire because there is smoke" ;for (2), "this is a tree because this is a *śiṃśapā*"; and for (3), "there is no pot here because it is not apprehended." The second and third type of *hetus* are rejected by Bhāsarvajña.

A very interesting discussion on the notion of causality and induction follows. Passages from Dharmakīrti and Prajñākara are frequently cited and criticized. In a long quotation from Prajñākara it is argued that cause and effect are mutually connected and therefore one must necessarily imply the other and vice versa. This view is rejected. Bhāsarvajña says that cause and causal conditions must exist when the effect is being produced, but when the effect has already been produced they may or may not exist.

(Pp. 300-03) The Nyāya accepts only-positive (*kevalānvayin*) properties (i.e., ever-present properties) as *hetus* and *sādhyas* in inference. Dharmakīrti criticized this admission, and Bhāsarvajña defends it. Dharmakīrti also criticized the notion of an only-negative (*kevalavyatirekin*) *hetu*. Our author answers the Buddhist objections and analyzes Uddyotakara's example "A living body is not without a self, otherwise it would not show signs of life, breathing etc." in order to defend it.

(Pp. 308-20) Bhāsarvajña adds one more fallacy of the *hetu* (*hetvābhāsa*) to the traditional Nyāya list of 5. It is called *anadhyavasita*. The *anaikāntika hetu* generates doubt as to whether the *sādhya* is present in the *paksa* or not. The *anadhyavasita hetu* generates a sort of uncertainty with regard to the presence of *s* in *p*. Doubt is oscillation between alternatives, while uncertainty is simply lack of certainty as to what the specific character of the *p* is.

(Pp. 320-77) Bhāsarvajña explains the 5 members (*pañcāvayava*) in a full-fledged argument. He generally follows the *Nyāyasūtras* on this topic. Then he discusses the 3 types of debate (*kathā*) as well as such items as quibble, futile rejoinder, and ways to lose an argument. He adds more futile rejoinders to the Nyāya list of 24 found in the *Nyāyasūtras*. He also refers to Dharmakīrti's criticisms of several Nyāya categories of debate in the *Vādanyāya*. These criticisms are answered and the Nyāya view is defended.

CHAPTER III

(Pp. 379-88) This is the chapter on verbal authority as an instrument of valid knowledge. Dignāga and Dharmakīrti talk of only 2 instruments because they recognize only 2 types of objects. This view is rejected and verbal authority established as an instrument.

Dharmakīrti argues: There is no invariable connection between a word and the object it signifies, and thus words are merely indicators of what the speaker has in mind.

Bhāsarvajña answers: Since there is no invariable connection between word and object, we do not say that verbal authority is only a form of inference (as the Vaiśeṣika does). Verbal authority is actually a separate means of knowledge like perception. Just as the eye reveals an object with the help of light, etc., so also the word reveals its object aided by the memory of our first learning of the meaning of the word (*saṅketa*).

(Pp. 389/421) The Vedic scriptures are established as composed by the Omniscient and, therefore, it is argued that they are without error. The Mīmāṁsā view that the Vedas are eternal and without any author is criticized. The Mīmāṁsā says that there is a "natural" relation between the word and its object and that sound is eternal. Both of these views are rejected.

(Pp. 421-27) Here Bhāsarvajña tries to prove that Gautama mentioned verbal authority as an instrument of knowledge only to establish the authority of the Vedas or scriptures, which can be regarded as a special kind of verbal authority. And comparison (*upamāna*) was mentioned by him as the third instrument simply to establish verbal authority, i.e., to establish sentence meaning in general as another means of knowledge besides perception and inference.

If the object referred to by the word is already known either by perception or by inference, then the word will not be an *original* source of knowledge. And if the object is not known by either perception or inference, then also the word cannot be the source of knowledge because we cannot establish any regular connection between the word and its object. To answer this dilemma, Gautama mentioned comparison just to show that the connection between the word and its object can be established in various ways such as through the notion of similarity (*sādṛśya-upamāna*). The relation between the expression *gayal* and the *gayal* can be understood through the *gayal's* similarity to a cow. In this and many other ways we can understand the relation between some unfamiliar word and the unfamiliar object it denotes.

(Pp. 427-34) All other instruments of knowledge such as comparison and presumption (*arthāpatti*) are to be included under the triad of perception, inference, and verbal authority.

(Pp. 436-85) Twelve objects of knowledge (*prameya*) found listed in *Nyāyasūtra* I.1.9 are discussed one by one quoting the relevant *sūtras* from I.1.10 to I.1.22. Under the topic of self (*ātman*), Bhāsarvajña talks about 2 types of self, human self and God. God is called Maheśvara. God is established through inference and scriptural authority (*āgama*). A form of the causal argument is formulated to prove God by inference. The atheistic arguments of the Sāṃkhya and the Mīmāṃsā are rejected.

The maker of a pot is the potter who is an embodied being, but from the empirical evidence how can one infer God as the maker of the earth, etc., since God is presumably a disembodied being? Bhāsarvajña answers : A product usually has an embodied agent or

maker. But if the fact of being a product warrants us in inferring an embodied maker of the earth, then that inference could be contradicted by the fact that it is impossible for an embodied agent like us human beings to produce a vast effect such as the earth. Hence we conclude that a product like the earth does not have an embodied agent but simply has an agent, and that agent is no other person than God.

Bhāsarvajña devotes a considerable portion of this section to discussing and analyzing various problems connected with theism. Such questions as "Why should God act to create since He is supposed to be totally without any unfulfilled desire" are answered. Three alternative views are mentioned: (1) God acts for the sake of others, (2) God acts for his own sake, (3) God acts out of His own good nature.

There is only one God, not many. He sees everything and His knowledge is eternal. With such unbounded knowledge He becomes the creator of the earth, etc. Many Buddhist objections culled from Dharmakīrti and Prajñākara are discussed.

(Pp. 509-41) The Buddhist theory of universal flux or momentariness is discussed in detail. Verses from *Pramāṇavārttika* are cited to prove the thesis of momentariness. Everything that exists is momentary because it exists only in doing something. A stable, momentary object cannot cause anything to happen either gradually or simultaneously, and hence it can only be a fictitious object.

Bhāsarvajña rejects the thesis of momentariness. It would be logically impossible to construct an inference of the sort "A stable object is nonexistent because of its stability" since there are no stable objects according to the Buddhist. It might be said that a stable object is an imaginative construction (*saṃvṛti*) and accepting such an imaginary entity one might try to construct the said inference. But this is criticized and rejected. In fact, a stable object *can* produce other things either gradually or simultaneously depending on how it becomes associated with the accessories (*sahakārin*). Logical arguments are equally strong on both sides, for momentariness and nonmomentariness. But recognition (*pratyabhijñā*) is an additional proof in favor of the thesis of nonmomentariness.

Dharmakīrti argues: Destruction is a *natural* process and an object is self-destructive. Bhāsarvajña analyzes this argument and criticizes it. It is argued by the Buddhist that if destruction were produced by an external cause then since all products must meet destruction eventually one can conclude that destruction itself can be destroyed, which would mean that the object would be re-

created. Bhāsarvajña answers no. Only with regard to positive objects (*bhāva-padārtha*) does such an invariable connection between production and destruction hold. But "destruction" itself is a negative concept, corresponding to an absence (*abhāva*), and hence it is not included under the above rule. It is just the nature of destruction that it cannot be destroyed although it is produced.

(Pp. 543-52) Human selves are ubiquitous and also eternal. They transmigrate from the old body to the new body. Experiences in one life leave their latent impressions on the self, these impressions (*saṃskāra*) being qualities of the self. Some of these impressions are transferred from one birth to another. These impressions can be revived through appropriate means. Those which are called instincts—a child drinking milk and crying in pain—are, in fact, revived latent impressions, according to Nyāya.

Dharmakīrti argues: Knowledge of self will lead the person on to a never-ending cycle of rebirths instead of freeing him from it, because knowledge of self leads to love of self which eventually changes into selfish desire for perpetuation.

Bhāsarvajña rejects this argument. The kind of self, the Nyāya talks about does not in fact give rise to a selfish desire or love of self. It rather prompts one to work for his freedom from suffering.

(Pp. 552-60) Incidentally, the Jain view is discussed. The 7 categories (*tattva*) beginning with self (*jīva*) and nonself (*ajīva*) are explained with frequent citations from *Tattvārthavārttika* (of Bhaṭṭa Akalaṅka ?). The Jain theory of nononesidedness (*anekāntavāda*) is also explained. Bhāsarvajña, however, rejects the Jain position.

(Pp. 562-73) The Sāṃkhya school says: Cognitions, pleasure and pain are not located in the self but in matter (*pradhāna*). Five different proofs to establish the existence of matter are cited and examined. Bhāsarvajña says that none of the reasons used in these 5 proofs are conclusive. Verses from the *Sāṃkhyakārikās* are quoted to show the relative positions of the self and matter in the Sāṃkhya school. The Sāṃkhya theory of effect preexisting in cause (*satkārya*) is also discussed and refuted.

(Pp. 574-83) The way leading to final freedom is knowledge of the supreme self. The Advaitin argues: Knowledge of the identity of the ordinary self with the supreme self leads to final freedom. Many verses are cited from scriptures like the Upaniṣads to prove this point. But Nyāya supports dualism of the ordinary and supreme selves (i.e., between self and God) and rejects any form of Advaitism. Bhāsarvajña quotes some verses from the Upaniṣads to prove dualism.

He says that scriptural verses that talk about nondualism can also be interpreted as dualistic.

The Advaitin's contention that the nature of reality is indeterminable (?-*anirvacanīya*) is also refuted. Reality is knowable.

Bhartṛhari's theory of *śabdadvaita,* nondualism of the Word,' is also discussed and refuted.

(Pp. 584-98) Bhāsarvajña talks about the methods of *upāsanā* (religious practice) in order to achieve the final freedom. He mentions yoga, *tapas*, etc., as ways toward freedom. The 8 limbs (*aṅga*) of yoga are recommended.

Time and space may not be separate categories, i.e., separate substances as the Vaiśeṣika says. God, time, and space are, in a sense, identical.

In the Nyāya concept of freedom there is neither sorrow nor happiness. This is the traditional view. But Bhāsarvajña thinks that there is happiness or delight in final freedom (*mokṣa*).

20. SĀNĀTANĪ

Dinesh Chandra Bhattacharya tells us[1] that in Udayana's *Pariśuddhi* there is a reference to this writer, who, Bhattacharya thinks must have antedated Vācaspati Miśra. The passage says Sānātanī was a Bengali. He must have written a commentary on the *Nyāyasūtras*. He is also referred to by Vardhamāna. In the *Pariśuddhi* passage he is credited with having held that there are 4 rather than 3 kinds of controversy (*kathā*). V. Vardachari reports[2] that Udayana twice refers to Sānātanī.

21. VYOMAŚIVA

Vyomaśiva seems to have been the earliest of the three great commentators on Praśastapāda's *Padārthadharmasaṃgraha*, although it is likely that all three were contemporaries. (The other two are Śrīdhara and Udayana). Gopinath Kaviraj writes that he "seems to have been a Śaiva saint of the South... Vyomaśiva was the leader... at any rate a learned representative of a distinct section of the Vaiśeṣika school[1]....". Estimates of his date vary, but V. Varadachari, whose summary follows, estimates 950, and this seems to agree well with most other suggestions.[2] Vardhamāna tells us that he preceded Udayana, and D.C. Bhattacharya claims that views which according to Śaṃkara Miśra belonged to Śrīdhara and were refuted by Udayana were in fact the views of Vyomaśiva. He says

that Vyomaśiva, Śrīdhara, Vācaspati Miśra, and Vallabhācārya all address themselves against *Nyāyabhūṣaṇa*.[3]

The *Vyomavatī*, Vyomaśiva's only known work, is untranslated and has only been edited once, in the Chowkhamba Sanskrit Series (B1054). Page references in Professor Varadachari's summary below are to this edition. Footnotes are Professor Varadachari's. Sections are numbered to correspond to the summary of Praśastapāda's work above.

VYOMAVATĪ or ṬĪKĀ on Praśastapāda's Padārthadharma-saṃgraha

Summary by V. Varadachari

The *Padārthadharmasaṃgraha* is an independent treatise on the Vaiśeṣika system. It is also known as *Padārthasaṃgraha*,[4] *Padārtha-praveśa*,[5] and *Praśastapādabhāṣya*.[6] The last mentioned title would suggest this work to be a commentary on the aphorisms of Kaṇāda, as other commentaries are on other systems of thought, e.g., *Nyāya-bhāṣya*, *Śabarābhāṣya*, and others. However, this is no commentary at all, but is named so in all the commentaries on it.[7] It is a treatise planned and executed by its author on the basis of the aphorisms of Kaṇāda which are cited[8] occasionally in support of his treatment of the subject.

The author of the work appears to have been known as Praśasta[9] and became reputed as Praśastadeva[10] and Praśastapāda.[11] He is also referred to as Bhāṣyakāra.[12]

The *Padārthadharmasaṃgraha* has 3 commentaries under the names *Vyomavatī*, *Nyāyakandalī*, and *Kiraṇāvalī* written by Vyomaśiva Śrīdhara, and Udayana respectively. Internal evidences show that the order in which these are enumerated here is chronologically correct.[13] It appears that there was also the *Līlāvatī*, another commentary by Śrīvatsa, which is not extant.[14] The writer's identity is not established. There are other commentaries which belong to the later period.

Internal evidence[15] is available in the *Vyomavatī* which shows that attempts were made before Vyomaśiva to interpret the *Padārthadharmasaṃgraha*. Some of these interpretations are simply alluded to and others are rejected by Vyomaśiva. These could have been taken from the commentaries written on the work by the predecessors of Vyomaśiva, whose names have not come down to us. Such references may also be taken to represent the views of other schools

of thought made in connection with the rejection of the doctrines of the Vaiśeṣika school.

Vyomaśiva, as the name indicates, must have been a follower of Śaivism. It is said that he was a native of Kashmir[16] and that this name was assumed by him when he became a recluse, that he was known as Śivāditya Śivācārya in the previous order of his life, and that he wrote the works *Saptapadārthī*,[17] *Lakṣaṇamālā*,[18] and *Śaktisaṃdoha*. All this is unsupported by evidence. Vyomaśiva's attempt to leave out absence from the list of categories and Śivāditya's classification of the categories as positive and negative prove that the two writers must have been different. This is further strengthened by the absence of reference in the *Vyomavatī* to the *mahāvidyā* syllogism which Śivāditya is stated to have advocated in the *Lakṣaṇamālā*.

Vyomaśiva's reference to his preceptor shows that the latter must have been an able exponent of the Nyāya-Vaiśeṣika doctrines and he must have dealt elaborately with the topics[19] of the nature of the whole, proofs of God, refutation of momentariness, definition of perception, refutation of Sāṃkhya, verbal authority, the number of instruments of knowledge, and other topics.[20] Neither the name of this writer nor that of his work is available to us.

Vyomaśiva mentions *Padārthasaṃkara*[21] as the name of a work which he cites twice in support of his interpretation and which is not the same as the *Padārthadharmasaṃgraha* of Praśastapāda. He quotes from Kumārila's *Ślokavārttika*;[22] Dharmakīrti's *Pramāṇavārttika*,[23] Vātsyāyana's *Nyāyabhāṣya*,[24] Uddyotakara's *Nyāyavārttika*,[25] and Bhartṛhari's *Vākyapadīya*.[26] Certain quotations are not traceable to any known source.

The nature of the treatment of the subject matter in the *Padārthadharmasaṃgraha* is based upon the aphorisms of Kaṇāda. It begins with an invocatory stanza which is followed by a brief introduction. The similar features among the categories are then set forth and examined. Then follows an elaborate treatment of the specific (dissimilar) features of the categories one by one.

The name *Vyomavatī* for the work of Vyomaśiva is to be explained after the name of the writer. *Padārthasaṃgrahaṭīkā* is the name of the work as it is given in the colophons at the end of the sections dealing with each category. *Saṃgrahaṭīkā* appears to be the name mentioned by Śrīdhara in the *Nyāyakandalī*.[27] Udayana refers to the author of the work as Ṭīkākṛt.[28]

The beginning portion of the *Vyomavatī* is missing and what little could be taken to have formed roughly a part of it is filled with

lacunae. Anything like a connected sense is hardly available from this portion.

Introductory Section (p. 20)

From the fragmentary portion at the beginning of the text, Vyomaśiva is found to refer to the fashion in which the aphorisms were composed by Kaṇāda. Through the grace of Maheśvara (i.e., Śiva) the sage Kaṇāda acquired the knowledge of the 6 categories and composed the aphorisms. As these were brief and beyond the understanding of the people, Praśastapāda gave an exposition of their contents. Kaṇāda's treatment of the categories intended to help people in getting final release (*mokṣa*), which is a prosperous state when the 9 qualities of the self are annihilated. It must therefore be understood that this system concerns itself with the means of attaining final release and does not deal with the 3 other pursuits of life which are accomplished with little effort. One who gets correct knowledge of the 6 categories is required to meditate on it. Continuous meditation will remove the erroneous cognitions along with their products such as hatred. Then there results the cessation of activities, upon which merit and demerit do not any longer arise. Whatever be the results of those still left over will be destroyed by experiencing them. Then the stage of final release comes into being.

According to the Bhagavadgītā[29] the fire of knowledge reduces the (results of) actions to ashes. A well-known statement[30] declares that the results of actions would not get exhausted even after the lapse of ten thousands of aeons, until they are experienced. These statements contradict each other. An explanation that would justify both could be offered by holding that one who gets knowledge through meditation will realize how the results of actions can be avoided. He may then get the experience of all actions simultaneously by creating several bodies for the purpose through yogic power. A person who acquires true knowledge will have to perform the actions of obligatory (*nitya*) or conditioned (*naimittika*) sorts. It is only then that he can avoid the sins of omission (*pratyavāya*). He must refrain from committing acts which are prompted by desires (*kāmya*) or which are forbidden (*niṣiddha*). He has also to surrender the result of all actions to the Supreme Preceptor who is God.[31]

Those who become recluses (*sannyāsis*) are said to enter into the sun's disc and proceed upwards. This does not mean that they get final release, but a region better than here is meant by this. So it is only the knowledge of reality that is the means of obtaining final release.

The views of several schools about the nature of final release are reviewed here.

The first view is that Brahman's nature is bliss and the soul gets it in the released state. This is baseless, as there is no means such as body, or mind, etc., during the stage of final release to enable the self to have the enjoyment of bliss. The word "bliss" is to be taken in the figurative sense, to mean absence of pain.[32]

According to the second theory, final release consists in discrimination between matter and spirit. This view is to be rejected, as the basic concepts of matter and spirit maintained by the Sāṃkhya school, which holds this theory, are untenable.

The third theory is maintained by the idealistic Buddhists who hold that final release consists in the use of knowledge which is free from likes, dislikes, etc., due to reflection on the instability of the world. This theory cannot be maintained, as the self and the world are established to be stable.

The Jainas hold a fourth theory, according to which an imperishable body is acquired during the state of release by reflecting upon the nonexclusive (*anekānta*) nature of things. A theory like this is to be rejected, since a nonexclusive nature cannot lead to a state of a decisive nature such as release.

According to the fifth theory, which is held by the Advaitins, the individual self gets itself lost during the released state in the Supreme Self by realizing that the self is only one. This theory cannot be maintained, as the knowledge that the self is only one and the world illusory cannot be helpful in attaining the released state.

The sixth theory, which declares that the state of release is characterized by *śabdādvaita* (word-monism) and is the theory maintained by the school of Grammarians, cannot be accepted since it cannot be proved that all except word is illusory.

The last theory referred to declares that through the grace of Śiva the impure prosperity in which the self finds itself gets destroyed and then the self acquires the qualities of Śiva. This theory, which was held by schools of Śaivism such as Pāśupata, Śaivasiddhānta, and others, does not stand to reason, as the qualities of one self cannot be acquired by another.

The benedictory stanza is then explained. The act of offering prayers to a deity and preceptor is justified by taking the word *atha* in Kaṇāda's first aphorism[33] to mean "then", which has the sense of "after bowing to God." The word *īśvara* must mean Śiva who is the source of knowledge. This interpretation fits in with the context of writing a treatise proving the way to release. The

word *hetu* means God as the instrumental cause. Treatment of the real nature of the categories is intended to offer an exposition of merit which would yield the correct knowledge.

The word *Padārthadharmasaṃgraha* is to be split to as *padārthānāṁ dharmāḥ teṣāṃ saṃgrahaḥ*. The portion *padārthadharma* is a compound of the subordinating type and so greater significance is attached to *dharma*. The word *saṃgraha*, when compounded with this, gets the greatest importance and means the characteristics (*dharmas*) of the categories as dealt with in other works are treated here in brief. The word *mahodaya* refers to the great prosperity mentioned by Kaṇāda.[34]

A discussion is then undertaken on the relative merits of incorporating the stanza of benediction into work.[35] Some works in which the stanza of benediction is included are not found to have been completed by their authors, e.g., *Kādambarī*. Others which do not begin with a benediction are found completed, e.g., *Nyāyabhāṣya*. A particular kind of merit must be taken as the cause of the completion of the work undertaken, and not the benediction, therefore,

Obeisance may be verbal (*vācika*) or mental (*mānasa*). Verbal obeisance which has the support of the mental one will have to be treated as responsible for the successful end of the work. Obstacles are destroyed by obeisance to God and preceptor. This act of obeisance will also endow the disciples of the author with the qualities expected of them. (This exposition of the topic is quite peculiar and is different from those given by other commentators on the *Padārthadharmasaṃgraha*).

1. (p. 20) Six categories are mentioned by Praśastapāda. Absence is not mentioned along with these, as its position is subordinated to those of the positive categories. It is only when a positvie object is known that its absence can be apprehended.

In the word *tattvajñāna* ("knowledge of reality") *tattva* is to be taken as the qualifier (*viseṣaṇa*) of the substantive *jñāna*. *Tattva* means "accurate" and accuracy is the characteristic of certain judgments. In this way erroneous cognitions can be kept from being included under *tattvajñāna*.

2. (p.33) Accurate judgments are to be attained by merit which manifests itself at the will of God, and only eminent sages like Kaṇāda can acquire it. Others have to make a study of the characteristics of the categories in order to get this knowledge. The Vedas incite people to take to the performance of righteous activities and they contain passages which create such incitements (*codanā*). The Vedas are valid through being the compositions of God. The

specific merit mentioned by Kaṇāda may be taken to be manifested by the Vedas.

(Pp. 44-46) Now the discussion turns to the topic of the relations between the part and the whole. An objection is posed. How do the parts and the whole become related to each other? If the whole is said to exist partially in the parts, then the whole must have some parts not covered by it and would cease to be the composite whole. Then it must be taken to exist in different regions. In such a case the whole cannot be apprehended as a unit. Actually, what is cognized is only a conglomeration of parts such as color, taste, and so forth. Substance and quality, etc., the parts of things, cannot therefore have independent existence. Differences between them are not apprehended. So the bare apprehension of objects has to be admitted as constituting reality.

Answer: This theory, which is put forward by the Buddhists, cannot stand, since there is correlation (*pratisaṃdhāna*) between the judgments of two qualities apprehended by two separate sense organs. This correlation would be without a base if there were no object like a substance to which they could belong.

The Buddhist may say that the apprehension of an object can only be of the nonpropositional (*nirvikalpaka*) type, the apprehension of the "parts," i.e., the thing's qualities, contributed by conceptual construction (*kalpanā*). But this can be no argument, since the conceptual constructedness (*vikalpa*) in the perceptual judgment which arises subsequently can be proved to have been caused by the recollection of the traits of the object already perceived. Both nonpropositional and propositional judgments of perception must therefore be held to arise from the object possessing the characteristic features. Otherwise the judgment concerning the whole object would depend completely on the nature of the words which denote it, which is absurd. So the propositional judgment of perception must be admitted to arise as soon as the contact is effected between the sense organs and the object. The differences between the 2 kinds of judgment—propositional and nonpropositional—are due to the differences in the accessory conditions that help in producing these judgments. And the fact that the 2 kinds of judgment are different is sufficient to prove that objects are not without qualities; they have parts and each of them, or at least most of them, are cognized by more than one sense organ. These parts are found to exist in one and the same composite whole.

It is needless to discuss how the parts and the composite whole exist in mutual relation. A part is that which is one among many.

The whole is that which does not have anything uncovered by it. A whole, which is spoken of as a unit, cannot strictly speaking be said to have parts. What is single must have full pervasion of all its "parts." A whole is apprehended by contact with the sense organ which cognizes the parts of that whole.

Reference to the nonapprehension of the hind parts of a whole is meaningless, since this indirectly admits of a whole whose parts are said to be cognized.

It is improper to speak of the whole as located in different regions on the ground that the parts or the qualities are apprehended individually. A cow and a horse are different from each other because of the different characteristics possessed by them, not because of the difference in the regions where they reside. Though forming parts of one whole, the qualities, motions, and other characteristics which are its parts are cognized by different sense organs and are cognized at the same time as the composite whole is cognized. It is not necessary to apprehend all parts of the whole, since even when there is very little light the composite whole is apprehended, even though all its parts are not exposed to the light.

3. (p. 47) The number of substances is no more than 9. Shadow (*chāyā*) is not an independent substance, for a shadow is only the absence of light produced by screening of the light by an object whose shade is cast there and whose movement creates the impression of movement.[36]

9. (Pp. 107-08, 142-43) The definitions offered by Praśastapāda for the various categories and their subdivisions are analyzed and explained. The case of the definition of inherence may be cited here. Praśastapāda defines inherence as the cause of a judgment that something of a given kind is "here," and it is said to be a relation between inseparable things, as well as between things related to each other as container and contained. The first part of the definition Vyomaśiva explains as having the function of excluding from the definition a case such as seeing a village from a distance and seeing the trees as located there also. However, we do not say that the trees occur "here"—i.e., as a property of the village—and so this is not a case of inherence. As for the second part of the definition, a bird flying in the sky and the sky are related to each other, but inherence cannot be the relation since they are not related to each other as container and contained. The *badara* fruit and a basin have the relationship of container and contained, but are not inseparable: thus the third part of the definition.

Qualities and motions inhere in a substance and when all of them are destroyed, inherence continues to exist: it is not produced anew. It does not have a substratum other than the individuals (*vyakti*) which it relates.

11. (Pp. 112-14) When describing an object it is necessary to mark out those features which distinguish it from others. Thus in Praśastapāda's definitions it is the differentiating features which are given. Such features often serve us in making identifying referential judgments (*vyavahāra*). This is best done through utilizing inference of the only-negative type. This mode is adopted by Vyomaśiva throughout the work. An explanation is offered for adopting this mode. When a particular sense organ comes into contact with a unique characteristic of a certain kind of object, a non-propositional perception is produced. In order to deny any other kind of object's possession of that characteristic, inference of the only-negative kind is to be adopted. The need for this is felt when others have to be instructed about the object by showing that there is no *sapakṣa*.

15. (Pp. 189-94) While explaining the relation between earth and earthness, Vyomaśiva enters into an elaborate discussion regarding reference. He concludes that a word denotes an individual as having a universal.

36. (Pp. 221-23) The earth is proved to have variegated color (*citrarūpa*). The argument follows Uddyotakara's comment on NS IV. 2.12, above.

(Pp. 223-25) The existence of atoms is proved by inference. A composite whole must have parts of a size smaller than that of the whole. However, there is a limit to this process; otherwise infinite regress would result. The point at which the regress is cut off demarcates the size known as "atomic" (*paramāṇu*).

(p. 228) The body (*śarīra*) is defined as the seat of activity which takes place in conformity with the volition of a person. According to some, body is that through whose perfection or imperfection the sense organs remain perfect or imperfect respectively up to death. An earthly body is defined as that composite whole which does not need any addition to complete it—a final whole (*antyāvayavin*)—while being produced by the flesh and other parts.

(Pp. 244-45) The earthly body is made up of only one element which is the material cause for it. It cannot be a product of all 5 elements (*pañcabhautika*) because in that case it would be required to show the presence in the body of the specific and individual qualities of all these elements such as white color which is brilliant, touches of

the hot, cold, and lukewarm kinds and so on, and also the qualities formed through the application of heat and those not so formed. The particular features of the triads formed through the atoms of more than one element forming the constituent dyads could not be explained. Moisture, heat, motion, and space which are the results of the operations of the elements are not always apprehended in bodies of the earthly type. Their occasional apprehension is to be explained by admitting earth as their material cause and the other four elements as other kinds of causal factors. In this sense the term *pañcabhautika* might be reinterpreted to accord with our theory.

(Pp. 232-33) A sense organ is defined as an instrument which is invariably located in a substance beyond the reach of the senses, which substance produces an immediate cognition. The word "instrument" excludes the self; "substance" excludes contact between object and sense organ: and "invariably" excludes space and time which are the instrumental causes for all effects.

(Pp. 233-34) Praśastapāda describes the nature of a sense organ as due to being produced by those parts of that element (to which that organ belongs) which are not overpowered by other elements. On this Vyomaśiva remarks that it is because of this that a particular sense organ is able to grasp a particular quality. He cites Kaṇāda (VS VII. 2.5) in support of his interpretation. The word *bhūyastvāt*[37] here is interpreted as meaning "having a larger number of component parts of that element whose quality it will apprehend."

38. (Pp. 256-57) The visual organ possesses color of a special type. If this is not admitted, the visual organ, being a product of fire, will have hot touch also manifested. The visual organ has a size and is possessed of parts. Thus it is the kind of thing which should be visible. It is not visible, however, because it does not have, as light does, the specific color called "manifested" (*udbhava*).[38] In the absence of this color even a substance having a large size and many parts is not apprehended. This manifested color acts as an accessory in the apprehension of other colors. Because of its absence color is not found in, e.g., the fire that lies in the hot water, in spite of its having all the other requisites for being perceived. On the other hand, it is its presence which makes fire shine in the dark.

Why should there be unmanifest as well as manifest colors ? Things have been created in the world for enjoyment. There must be a restriction on enjoyment, for it is merit and demerit that regulate enjoyment. If objects are perceived visually even at night there will not be any enjoyment. Therefore the Creator made the visual

organ possess unmanifested color. Similarly, the hot touch of the fiery parts of the visual organ is unmanifested, because otherwise the things perceived by that organ would be burnt. It is because of this that objects, even though perceived by many, are still enjoyable.

Vyomaśiva adopts the same principle in dealing with the other sense organs. He adopts Kaṇāda's aphorism VS VIII. 2.3 and applies it, with changes suited to the context, in the case of the taste,[39] visual,[40] and tactile sense organs.[41]

(P. 258) Praśastapāda, while dealing with fire, quotes a Vedic passage: "the chief offspring of fire is gold" (*agner apatyaṃ prathamaṃ suvarṇam*). Vyomaśiva remarks that by offspring is not meant *anything* that comes out of fire, for then smoke will have to be treated as the offspring of fire also. The word "offspring" (*apatya*) is to be taken as a reference to the things belonging to the same species. "Fire" cannot refer to an inert object, so the deity presiding over the fire is meant here. Lac and other earthly products become gases due to constant application of heat. Intense heat produces fluidity in gold, and so gold cannot be a product of earth. It must therefore be brought under fire. The Vedic authority which declares gold to be a product of fire cannot be counteracted by any inference.

39. (P. 272) There is a lengthy discussion on the nature of air. Air is perceived through the tactile sense. This judgment takes the form "the chill wind blows," "the hot wind blows." This cannot be a case of inference, since the middle term in an inference is to be remembered after the rise of subsumptive reflection (*parāmarśa*) and it does not rise here. Nor can this be a case of verbal testimony, since no words are involved here. Vyomaśiva quotes VS IV. 1.6 as laying down the conditions of perceptual judgments. These conditions are that the object perceived must have large (*mahat*) size, have parts, and have manifested color. Vyomaśiva remarks that these conditions apply fully in certain cases, but only partially in others. They apply fully in those cases where both the tactual and visual sense organs operate. In other cases, possession of manifested color cannot be a condition. In the case of the self, for example, only one condition, namely large size, is available, due to which it is perceived only by the internal sense but not by the visual sense, for which large size and possession of parts constitute the conditions. On the other hand in the case of earth, etc., all three conditions stand. During the night fire is perceived even from a distance because of its prominent color. Though possessed of large size and parts, mountains are not perceived at night since color is wanting in them. But

when there is external light the mountains are perceived even from far away....Little importance is attached here to large size.[42]

40. (Pp. 301-05) While dealing with the topic of creation and dissolution Vyomaśiva takes up the proof of God's existence. Such proofs are derived from inference and verbal testimony. The inference in question is: "The creation and destruction of earth etc. are the result of an agent, because they are the results of intelligent action, like the creation and destruction of a jar." Human agency must be denied here, since He who is held to be the agent is required to be skilled in handling the materials which would produce effects like earth. These effects require an intelligent, in fact an omniscient, agent. The question of the possession of a body on God's part is not pertinent, for the inference is based on general invariable concomitance; it would be equally beside the point to complain that the argument fails because makers of jars are not omniscient. The features of the examples must not be introduced into the *sādhya*, for then there will be nothing to prove.

Traces of past actions cannot in themselves explain creation and dissolution. Being inert, they require to be controlled by a sentient agent. Ignorance of and absence of direct control over the atoms, out of which the world is created, show that the individual selves cannot be treated as the agents. The analogy of the flow of milk[43] which is inert, is beside the point, since milk does not flow from the dead body of the cow or when there is no effort on the part of the cow and the calf.

If one should insist that anything must have a body to be called an "agent," this would raise difficult problems. The body is located in a definite place where alone the effect could be proved to take place. But then no agent can be shown to bring about effects in all the places they are produced. Admission of a body which is all-pervasive, intangible, and lies beyond the range of the senses, is unjustified, for this is opposed to the (ordinary) notion of a body. Since there cannot be an eternal body, even God must have His body created. If another body is required to create His body, then this will lead to an infinite regress. Then God would not be able to do anything else but be creating one body after another. If another body is not required, then, as He is said to create His body without having a body, in the same manner He may be admitted to create the world without the possession of the body. Again, if God had a body, it must perish along with the rest of the world at the time of *pralaya*. God will thus be bodiless in any case at the time of

the first creation following *pralaya*. Thus it is improper to require that God have a body.

(P. 305) No particular motive is required to be the prompting force for God in the task of creation. God can be taken to create for the sake of others, having nothing to be accomplished for himself, since His nature is so, just as the nature of the sun is to illuminate others. He can create through His will, as we activate ourselves, induced by our desires. Or, the atoms may be taken to serve as God's body.[44]

(P. 305) God's will takes the help of the merit and demerit of the selves and so the problem of whether His will is eternal or not does not arise.

(Pp. 305-06) There are Vedic passages which prove God's agency in the world. The Vedas are authoritative, as they give rise to valid judgments. That a means of valid cognition should give rise to some activity or stop some activity has relevance only to a sentient's person's attempt to get delight or avoid misery. The passages of the Vedas which speak only of God's nature do not lose their validity, for even these passages yield correct judgments which may give rise to successful activities or dissuade from purusing the wrong course.

41. (Pp. 326-27) While dealing with *ākāśa*, Vyomaśiva refers to the need for offering more than one kind of evidence to prove a certain conclusion. This does not constitute any defect in the methods of debate and discussion. A few arguments are sufficient to create conviction for some people, while others require more.

44. (Pp. 391-92) The self is held to be subtle and therefore imperceptible. Subtlety is to be taken as the absence of bulkiness (*sthūlatva*) inhering in an object along with a color. It is not to be taken as meaning "having the size of an atom." Vyomaśiva refers to a view according to which the self is perceptible since it appears in judgments about the ego. He supports this view and explains that, when the self is declared to be imperceptible what is meant is that it is not perceivable by the external senses.

(Pp. 396-402) After proving that the self is eternal and is the seat of judgments, Vyomaśiva sets forth the doctrine of momentariness. According to this doctrine nothing lasts beyond a moment, so there is neither self nor judgment. Since there does not exist any entity beyond the moment when it comes into being, there cannot be a relation of cause and effect between a knower and his act of knowing. Accessory causes do not help, for they too cannot but be momentary.

Vyomaśiva sets this doctrine aside on the strength of the fact of recognition, which establishes that certain things endure for some time beyond the moment when they are produced, and that some last for all time. An object produces an effect when associated with accessory conditions, and does not produce it in their absence. The accessories combine to produce a single effect; e.g., the visual organ, color and light from an external source act together and give rise to a particular perceptual judgment. Differences in effects produced by the same objects have to be accounted for as due to differences in these accessory conditions.

Besides, there is no invariable concomitance between momentariness and existence (*sat*), as this cannot be supported by *sapakṣa* or *vipakṣa*.

Assumption of mere dispositional tendencies as forming the link between one moment and another cannot justify the doctrine of momentariness and account for recollection, for the agent of an act may not be there to recollect its experience.

(Pp. 402-04) In discussing Praśastapāda's arguments for the existence of selves, Vyomaśiva shows that trees have selves and that they have, according to Vṛkṣāyurveda, desires.[45] When their desires are fulfilled they put forth flowers.

(P. 410) The Advaitin's view, that bondage in the case of the self consists in the self getting away from the Supreme Self and that the absorption of the self in the Supreme Self marks the state of final release, is set forth and criticized. If the selves are not different from the Supreme Self it must be explained who would get final release. If they are different, monism will have to be given up. Those passages[46] of the Vedas which speak of the self as one are to be taken as referring to the Supreme Self only. When they say that only one self exists in a body, they must be understood to be denying that more than one self can be in one body.

(Pp. 399-400) There is a detailed discussion about absences. While positive existents have certain features marking them, absences have no such features. Apprehension of them becomes possible only through their dependence on the positive existents. The judgment which arises about the absence of a jar on the ground is produced by a sense organ. It depends for its arising upon the ground that is qualified by the absence of jar. If the apprehension of the ground bereft of jar were not due to the absence, then such a judgment should arise even when the jar is present there. Hence the apprehension of the absence of a jar is itself the nonapprehension of the jar, and is not merely absence of apprehension.

52-53. (P. 432) Qualities are classified as specific (*viśeṣa*) and generic (*sāmānya*). A specific quality is defined as that whose specific nature qualifies only those substances which are of the same species as reside in the kind of substance associated with the quality.

(Pp. 438-39) The *Vyomavatī* features a detailed treatment of the noninherence cause. The function of this cause is to bring about an effect in that which is near to or related to it by inhering in the same substratum. The noninherence cause is of two kinds: (1) called *laghvī*, where it (the inherence cause) inheres in the same substratum as its effect does, and (2) called *bṛhatī*, where it inheres in the same substratum as the inherence cause of the effect does.

An example of the *laghvī* variety is the case where one sound causes another. Both the noninherence cause (the first sound) and the effect (the second sound) inhere in the same substratum, namely *ākāśa*. Here, however, the first sound cannot produce an effect anywhere; it must produce its effect nearby—thus the restriction in the original explication of this kind of cause in the previous paragraph. Merit and demerit also function as noninherence causes of the *laghvī* sort.

For an example of the *bṛhatī* kind, Vyomaśiva offers the color of the threads which help to produce the color of the cloth woven from those threads. Here the color of the threads inheres in the threads, and the inherence cause of the effect, namely the cloth, also inheres in the threads.

The first kind is called *laghvī*, "light" and the second *bṛhatī*, "heavy" because the first involves a simpler or more direct relationship than the second does. Color, taste, smell, touch which is neither hot nor cold, size and viscidity are always of the second, "heavy" kind when they function as noninherence causes. So also are the numbers above one. The number one, and separateness-of-one-thing, are always of the first kind when they function as noninherence causes.[47]

(P. 466) Since absences are not found to inhere anywhere they have no noninherence causes. However, they do have instrumental causes.

84. (Pp. 445-54) The effects of cooking (*pāka*) take place in earth atoms only. Conjunctions with fire are of varied kinds as is borne out by their varied effects. The Vaiśeṣika system believes that a motion has several parts lasting normally for five moments. The process of change is a sequential one marked by the gradual rise of contacts and disjunctions and of new qualities after the destruction

of the previous ones. Calculations are made to fix the time it takes for a substance to undergo a change in qualities due to cooking. Vyomaśiva maintains that it takes nine moments for the new quality to be produced.[48]

85. (Pp. 456-71) The elements have eternal numbers, while earthly products have noneternal numbers. The highest number is said to be *parārdha*, that is, 10^{14}. Vyomaśiva offers an elaborate explanation to show how the judgments of numbers are produced by enumerative cognitions.

86. (P. 473) While dealing with the 4 kinds of size it is said that the sizes of triangular, quadrangular, and circular objects are only the results of particular arrangements of the component parts and so are not independent kinds of size. But even when there is dim light and the particular arrangement of the parts is not noticed, pillars and other things appear as long or tall, etc. So the short and long, etc., sizes must be admitted as distinct kinds. By subdividing the large and atomic sizes into eternal and noneternal the number of sizes can be taken as 6.

(Pp. 475-76) The size of an atom is called "atomic-size" (*paramāṇuparimāṇa*), the size of a dyad is called "dyadic-size" (*dvyaṇukaparimāṇa*). The size of a triad is large (*mahat*). Two atoms, when they combine together to form a dyad, can only give rise to two atomic-sizes and not to a dyadic-size. Similarly, dyadic-size in the three dyads can produce only three dyadic-sizes, not largeness. Thus in these cases the size of the causes cannot produce the size in the effects. Therefore twoness (*dvitva*) is considered to give rise to the size of the dyad, and threeness (*tritva*) to that of the triad. Twoness and threeness can only be produced by the enumerative cognitions of a person who can cognize the numbers of the atoms and dyads. Such a person can only be God, or, conceivably, a yogi.

88. (P. 488) Vyomaśiva takes up the two illustrations given by Praśastapāda for the kind of contact (1) produced by the motion of one of two things. The first illustration is the contact between a pillar and a vulture alighting on it. Here the cause of the contact includes both the motion of the feet of the vulture and the contact arising between the vulture's feet and the pillar. This distinguishes it from the second kind of contact of type (1), where a substance of limited size comes into contact with an all-pervading substance. Here the noninherence cause is the motion of the first substance alone.

91-93. (Pp. 521-23) While interpreting the text which declares the words *buddhi*, *upalabdhi*, *jñāna*, and *pratyaya* to be synonyms,

Vyomaśiva refers to the Sāṃkhya theory of the *buddhi*. According to the Sāṃkhyas, *buddhi* is the first modification of the primordial matter. *Upalabdhi* is enjoyment which consists of the self's reflection in the *buddhi*, which transforms itself into pleasure, pain, and other feelings. Or it may be assumed that the self, which is unchanging in form, makes the inert mind appear sentient through its own illumination on account of its proximity. The sentience of the self cannot change.

Vyomaśiva rejects this theory. If the enjoyment were real, then there would be no difference between a self that is in bondage and one which has attained release. The activities of the Sāṃkhya *buddhi* have no specific features to be related to a particular self and so should be experienced alike by all selves. The self alone cannot be an agent, and since it must remain indifferent, it cannot have any enjoyment. The inert *buddhi* and its products cannot have any purpose in becoming active. Since on the Sāṃkhya view the changes undergone by the *buddhi* are identical with it, *buddhis* also must be many, since the changes are many.

(Pp. 524-26) The idealistic school of Buddhists holds that objects do not have existence apart from judgments. They argue thus. Cognition is self-luminous and therefore reveals itself. Objects are inert and so cannot reveal themselves. If a cognition is held to be capable of illuminating objects, the question that would arise is this. Does this cognition get apprehended before it illuminates another ? If it is to be apprehended by another, this would lead to an infinite regress. If it is not apprehended by another, it cannot illuminate any object and the objects have to remain unilluminated. Thus there must be invariable concomitance between illumination and existence (*sattā*). Any quality, such as blue or yellow, that is presented in illumination can only be cognition and is not due to the existence of the external world. Due to beginningless impressions the cognition must be admitted to contain in itself the relationship of the cognition and the cognized, but this relationship is not real. Just as a man suffering from eye disease gets the cognition of two moons which do not exist, the person who is not learned gets a judgment about a world which does not exist. Cognitions cannot be admitted to arise or to be destroyed. A thing seen from a distance appears small, and when seen close up appears big. So it has no definite features. When the threads are carefully reflected upon, there cannot be any cloth, and when the parts of the threads are reflected upon, there will not be threads either. The untrained get on in the world accepting everything as workable due to *avidyā*. The

trained have to get on in life. What has been said does not prove that worldly activity should come to a stop for the scholar.

(Pp. 526-32) Vyomaśiva refutes this position by showing that a judgment must rise with reference to a specific object. That is, there cannot be a judgment without an object. Traces cannot by themselves explain the rise of a judgment, for their presence and absence are needed to explain the difference between one kind of judgment and another. A judgment is real, and the world unreal, according to the Buddhists; when they are apprehended together, the difference between them must be noted. Moreover, only that object is cognized with reference to which the judgment arises, and so the judgment becomes the possessor of the object. Judgment is therefore the illumination (*prakāśa*) of an object. When an object is cognized, there is no need in our view to find out whether that cognition is apprehended, since it rises due to the contact between the self and the internal organ. Another cognition is not therefore required to prove the first one. Only the self can become a knower, for judgments are only produced in selves. The analogy of a lamp should not be brought in here, for judgments which are formless become distinguishable from each other ccording to the objects from which they arise. The activities of people can be justified only if there are external objects.

The analogy of the cognition of the two moons is also absurd, since the man suffering from eye disease apprehends only one moon when his vision is corrected. A man with correct vision sees only one moon, for there is only one.

Again, every object must be taken to appear in its own form. If external reality is denied, the states of wakefulness and dream could not be distinguished from each other. The state of waking occurs when we are aware of an object which is in contact with our sense organs. Dreams are precisely judgments where this is not the case. If the objects that form the contents of our judgments are all unreal, then all our judgments are equally unreal. Therefore, there must be an external world.

(P. 532) The arguments of the nihilistic Buddhists are also baseless. If everything is to be taken as void (*śūnya*), on the ground that there is no relation between what apprehends and what is apprehended, this is unproved, since the objects of our cognitions are established on the strength of the valid instruments of knowing.

The Jain theory that *buddhi* is a particular modification of the self, and that in the state of change it is noneternal while in the state of no change it is eternal, cannot be maintained, for judgments are

many and so the selves should also be many. The theory of *anekāntavāda* cannot be maintained.

(P. 533) Imagination (*ūha*) is not enumerated as a distinct kind of imperfect knowledge, for it is not experienced as being distinct from doubt or indefinite knowledge.

94. (Pp. 534-35) In discussing doubt, Vyomaśiva begins by pointing out that the cause of doubt is the perception of the similar properties *in the object* about which the doubt arises; otherwise there would be no connection between the perceived similarity and the resulting doubt.

Vyomaśiva cites the aphorism of Kaṇāda II.2.17[49] to show that the word "perceive" in this aphorism is to be taken to mean any valid instrument—e.g., inference—not merely perception. The author refers here to an interesting illustration. Devadatta leaves his wife in his house and goes abroad. At the sight of women in the places he visits he does not have any doubt as to their being his or another's, although all the factors that give rise to doubt are available here. The time and place prevent the rise of such doubt.

(P. 536) While interpreting the twofold classification of doubt as external and internal Vyomaśiva cites *Nyāyasūtra* I .1.23[50], and explains that cases of doubt arising from apprehension based on the possession of certain features when we can understand the object in more than one way are to be classed as external doubt, while cases based on irregularities arising from the fact that a feature has both been apprehended and failed to be apprehended in an object are to be called internal doubt. The basis for internal doubt lies in the apprehension and nonapprehension getting in turn apprehended by the internal organ. Vyomaśiva justifies this by criticizing the *Nyāyabhāṣya* commentary on this aphorism. The division into 5 kinds of doubt, on the strength of the *sūtra* in question, must be given up, since the twofold classification is justified on the ground that some of the cases cited in the fivefold distinction are instances of doubt based on perception while others are based on nonperception.

95. (Pp. 539-40) While dealing with error Vyomaśiva sets forth and criticizes the Prābhākara theory that all judgments are valid.

(P. 541) While discussing errors of perception Vyomaśiva explains our perceiving the eyeball as black when our eyes are closed: the ray from the eye returns and produces this perception, just as in the case of reflection of the ray from the mirror by which we perceive our own face.

(P. 542) Adding some examples of errors of inference, Vyoma-

Śiva mentions mistaking mist, or the cloud of mosquitos stirred up by a whisk, for smoke.

(Pp. 542-44) Errors produced from verbal testimony are described by Vyomaśiva as arising due to a person's acquaintance with the wrong systems of thought, and they thus depend on one's point of view. E.g., the Vaiśeṣikas hold that all effects presuppose Parameśa (Śiva) and worship Him as the means for final release. This is erroneous cognition from the point of view of Mīmāṃsā or Buddhism. On the other hand, an objection raised against Vaiśeṣika theory of, e.g., selves by Buddhists would be erroneous cognition from the point of view of the Vaiśeṣika.

(Pp. 544-46) While discussing the Sāṃkhya principles under this head the author discusses elaborately the relative merits of the *satkāryavāda* (effect preexists in its cause) and *ārambhavāda* (effect arises anew) and establishes the correctness of the latter.

96. (P. 547) Indefinite cognition is different from doubt. Doubts rise only with reference to well-known objects, while indefinite judgments arise concerning both well-known and unknown objects. This may occur due to intense application, as in the case of the archer whose attention is fixed on hitting the target and who therefore does not know the name of a person who passed by. It may also be produced by earnestness, as in the case of someone meditating so absorbedly that he is not able to tell the name of the king who passed by him.

97. (Pp. 549-52) With reference to Praśastapāda's statement that in dream the internal organ "stands still in the heart...and moves," Vyomaśiva quotes the authority of the Āgamas, according to which the heart stands upside down and the internal organ remains still, during dream, in the region of the self where there is no contact with a sense organ.

There are two definitions of dream. One is that a dream is a mental perception which rises through the sense organs while the internal organ is at rest. The other is that dream is a mental perception which occurs when the internal organ is at rest. Dreams occur when the internal organ ceases to function as a result of *adṛṣṭa*. This cessation is required for providing rest for people and also for digestion. These two purposes may not apply to all individuals.

Some people hold that walls, etc., appear as elephants in dreams and are responsible for the occurrence of dreams. Neither perception nor any other valid instrument of knowledge can prove this; thus the theory is rejected. Therefore dreams have no objects.

98. (P. 554) Praśastapāda does not mention verbal testimony among the kinds of perfect cognition. Some hold that it is to be brought under inference. According to others, the fact that it is not mentioned merely shows that Vaiśeṣikas do not accept it as a valid instrument.

99. (Pp. 555-56) Vyomaśiva explains the alternative definition given by Praśastapāda (p. 355). The word "nondeviant" excludes doubt and error from the scope of the definition. The word *avyapadeśya* is intended to exclude judgments which arise from words together with the operation of the sense organs. For example, one who perceives a color may not know it to be a color, but when the word "color" is used in his hearing to denote it, he comes to know that it is one. This resulting judgment is not perceptual.

Some hold, according to the opinion of another school (*pratitantra*), that the word "well-defined" which occurs in NS I. 1.4 must be included in the definition. Vyomaśiva does not disagree. As for "nonwandering," however, which also occurs in Gautama's definition, it functions to distinguish perception from the other instruments and is not needed in the definition. Thus the final definition of perception should read: Perception is knowledge which is not erroneous, which is not verbal, which is well-defined, and which rises with reference to an object which is in conjunction with the sense organs.[51] The 6 kinds of connection with the sense organs, as found in Uddyotakara, are listed.

(P. 557) Perception must have an object. Substances, qualities, motions, and universals are the kinds of things which can be perceived. Some scholars add inherence to this list.

(Pp. 557-58) In the cases of earth, water, and fire, nonpropositional perception is produced at first. The condition for this perception is that the object which comes into contact with the sense organ must have a large size. This is Praśastapāda's first kind of perception, "just perceiving a thing in its own nature."[52] Other necessary conditions for this sort of perception are possession by the object of parts, manifested color, the presence of external light, merit and demerit, and the fourfold contact. Vyomaśiva construes this as referring to nonpropositional perception.

The second kind of perception is taken to be propositional perception. It is this which proves the existence of the previous nonpropositional perception.

(P. 559) Commenting on Praśastapāda's remarks about yogis, Vyomaśiva says that when a yogi perceives his self he requires contact between that self and the internal organ. When he appre-

hends his own internal organ, he requires the operation of his own internal organ. When he is to apprehend another's self, he effects a contact between his internal organ and the internal organ of the person whose self he is to apprehend.

(P. 560) That there are yogis is shown because there must be people who perceive atoms and other things not ordinarily perceived, since they are knowable like jars.

Universals and individuators are perceived by nonpropositional perception alone.

100-01 (P. 563) Vyomaśiva suggests[53] that the words "nondeviant," "well-defined," and *avyapadeśya* should be understood to apply in this definition as well as to that of perception. Then inference is knowledge, limited by the above terms, which arises from knowledge of a *hetu* as qualified by nonwandering and the absence of other fallacies, and refers to a specific subject about which something is being inferred. Or, inference is the apprehension of (*liṅga*) *parāmarśa* which is produced by the realization that the middle term possesses the absence of fallacies.

102. (Pp. 563-69) Vyomaśiva discusses the definition quoted by Praśastapāda from Kāśyapa which defines the *hetu* and specifies 3 types of fallacious *hetus*. In the course of dealing with the definition of *h* he refutes the Buddhists' attempt to add the term *eva* to the definitions of *p*, *sp* and *vp*.

(P. 565) As for the requirements for a proper *h*, Vyomaśiva shows how Kāśyapa's 3 kinds cover all 5 of the requirements for a proper *hetu* as set forth in Nyāya works, e.g., by Jayanta.

This leads to a discussion of the various fallacies of the *hetu*. A fallacy is something which has the form of a (proper) *hetu* but has one or more of the conditions missing.

Saṃdigdha occurs when the supposed *h* is not absent from all *vp*, but the other two conditions of the *trairūpya* are satisfied (presence in *p*, overlaps *sp*).

Viruddha occurs when the supposed *h* does not overlap the *sp* and is not excluded from *vp*, but the other condition is satisfied.

Asiddha occurs when the supposed *hetu* lacks all three conditions.

Vyomaśiva proposes that Kaṇāda's term *aprasiddha* includes, along with *viruddha*, the fallacies some call *kālātyayāpadeśa* and *prakaraṇasama*. Or they can be taken to be acceptable on the basis of their being admitted to the Nyāya system.

Some object to recognizing *kālātyayāpadeśa* as a separate fallacy; their argument is that since the defect involved results from defective formulation it should be included under the *asiddha* type. Vyomaśiva

rejects this, saying that though the defect lies in the formulation, the *hetu* is put forward and so there must be a fallacy corresponding to it. For example, in the putative inference "fire is not hot, because it is produced," the 3 conditions of a proper *hetu* are present, but the pervasion is nevertheless not established because perception tells us that fire is hot, and this sublates the inference. Thus this must be accepted as a distinct kind of fallacy.

104. (P. 570) An objector argues that pervasion cannot be a relation among universals since then inference cannot apply to particular cases; while if it is a relation among individuals we cannot infer anything about other individuals from data restricted to those we have observed. Vyomaśiva rejects this kind of argument and shows that relation must hold between universals. We learn to formulate relations among universals by repeated observations of individuals of different sorts which all fall under the relevant universals. At least that is one view. Others hold that knowledge of all the individuals falling under a universal is achieved when we apprehend pervasion; otherwise, the relation could not be universalized.

(Pp. 570-72) Vyomaśiva's criticism of the Buddhist concept of invariable concomitance[54] is detailed and marked by clarity of argument. Repeated observation, which is essential for maintaining invariable concomitance, is not admissible in the Buddhist conception. Also, invariable concomitance cannot exist between identical objects. Vyomaśiva offers illustrations to show the shortcomings of the theory of external pervasion. Those who climb up Kedāra hill listen to the confused sound and infer the presence of thunder. But there is no causal relation between confused sound and the presence of thunder.[55]

105. (p. 577) Vyomaśiva produces a clever reading designed to suggest that Praśastapāda's authority is not unequivocally favorable toward the inclusion of verbal testimony under inference. On this reading Praśastapāda meant to say that all instruments of knowledge except verbal testimony are to be included under inference. Vyomaśiva admits that the more obvious readings—that verbal testimony should be classified as a kind of inference—is also possible.

(Pp. 577-78) Vyomaśiva's own predilections are clearly favorable to the Naiyāyika view that verbal testimony is an independent instrument, however. Though he admits that verbal testimony involves a number of items paralleling inference—invariable concomitance, *parāmarśa*, perception, etc.—still the object of verbal testimony is beyond the senses, and the process involves reference to

the conventions governing the use of words. Neither of these last are present in inference. There is a discussion of convention.

(Pp. 579-84) At this point Vyomaśiva introduces a discussion of the topic of validity (*prāmāṇya*) of judgments. The Mīmāṃsaka arguments for intrinsic validity are set forth in detail. The Mīmāṃsā arguments to prove that the Vedas are eternal are also discussed. Vyomaśiva reviews these at length. The Mīmāṃsaka holds that validity is intrinsic and invalidity extrinsic. Vyomaśiva shows that extrinsic invalidity is due to defects, and that since validity thus must depend on merit it too must be extrinsic. Since sounds are noneternal, words and sentences which are composed out of them must also be eternal. The Vedas, which are a group of sentences, must also be noneternal. Therefore we must presuppose a beginning which must have been their composition by an intelligent person. Such a person must be free from all defects and he must be a different person from ourselves. It has already been proved that such a person has immediate perception of supersensible things, and indeed that he is none other than God. Being the composition of such a Supreme Person, the Vedas are valid extrinsically. Vyomaśiva cites certain of Kaṇāda's *sūtras* to show that these views constitute proper Vaiśeṣika positions.

(Pp. 584-87) Vyomaśiva next turns to the Buddhists. According to them, there are 2 kinds of knowables, namely (1) the thing in itself (*svalakṣaṇa*) and (2) other objects. The former are apprehended by perception and the latter by inference. Since there is no other kind of knowable, there cannot be a third means of valid cognition.

Vyomaśiva rejects this on the ground that words convey a sense which is nonwandering and correctly related to their objects. Thus verbal testimony must be a valid means of knowledge. The number or nature of the kinds of things does not determine the number of instruments of valid knowledge. More than one instrument can operate on one and the same object. For example, the self is known from the Vedas, inferred through inference and visualized through yogic perception.

106. (P. 587) An example of gesture is placing the folded palms near the mouth, by which a person creates in another the judgment that the gesturing person is thirsty.[57]

107. (Pp. 587-90) Comparison, which functions to produce knowledge of the *gavaya* which has not been seen before by means of the words of a reliable authority concerning the similarity between a *gavaya* and a cow, is only a type of verbal testimony, since it is only

the proving, by a credible person, of the *gavaya* through the cow on the strength of similarity. It is admitted that the *gavaya* is compared with the cow, but the way in which it is done is only of the nature of verbal testimony. Similarity (*sādṛśya*) cannot be taken as a knowable thing. The cognition that this cow is similar to a *gavaya* can only be a case of recollection. The resulting judgment obtained through the operation of comparison cannot be brought under presumption or negation or perception. It cannot be a case of inference either, as there is no operative *hetu*.

Some hold that a man hears from a forester that a *gavaya* is like a cow, and then, wandering in the forest, beholds an animal which is similar to the cow. He then remembers the relation between cow and *gavaya* and forms the judgment that this animal is similar to the cow. After this he understands that the animal is called *gavaya* because of the realization of the relation between the thing denoted and the word denoting it. Vyomaśiva rejects this by showing that the man learns the conventions governing the use of *gavaya* during his initial conversation with the forester. This view is squared with Kaṇāda's *sūtra* II. 1.19, which seems to require perception (*pratyakṣa*) of an object as a condition of its getting a name, by arguing that here the word *pratyakṣa* is meant to include any valid instrument of knowledge.[58]

108. (Pp. 590-91) The Mīmāṃsakas take presumption as having 6 kinds, each one based on one of the instruments of knowledge which they accept. Vyomaśiva shows that all 6 of them can be brought under inference, the common basis for inference and presumption being invariable concomitance.

110. (Pp. 591-93) On nonapprehension Vyomaśiva departs entirely from Praśastapāda and argues that it belongs under perception rather than inference. Perception must be admitted to apprehend absences through the operation of the sense organs. Vyomaśiva says that in the judgment, "there is no jar here on the ground," the absence of the jar is first apprehended, and only subsequently the ground. The absence is the qualifier, the ground what is qualified. There is no need to adopt a special kind of valid instrument for apprehending the qualified entity which is the object of perception. Generally, that which apprehends the counterpositive of an absence cognizes the absence as well.[54]

112-14. (P. 594) Inference for others consists in proving a thing, about which a decision has been taken by oneself, to another by employing 5 membered argument. Vyomaśiva takes the word

sādhya in this connections to refer to the thing about which a decision has been taken by oneself.

The difference between inference for oneself and for another lies in this: that in inference for oneself the *hetu* is given to the person for whom the inference is intended by the sense organs, while in inference for another the *hetu* is conveyed by language.

(P. 595) Arguing against the Grammarians' rejection of the 5 membered argument form, Vyomaśiva introduces a discussion of the *sphoṭa* theory. Vyomaśiva rejects that theory. His account of the way in which the meaning of a sentence arises is this: when the first meaningful noise arises it produces a trace. The second such noise is then cognized and the trace created by it becomes associated with the trace produced by the first one. In this way one eventually comes to the last meaningful unit. With the traces of the previous noises operating as accessories, this last noise produces the judgment as to what the whole passage means. This is the view of the Vaiśeṣika school.[60]

(Pp. 595-99) Vyomaśiva mentions a number of views about meaning in the course of establishing his own. Some, he says, hold that the traces which are produced by the experience of the previous letters are restricted by *adṛṣṭa* so that one does not cognize independently the meaning of each constituent unit but a single recollection is eventually built up which acts as the accessory in the final realization of the meaning of the whole passage. Others hold that the several noises each produce their independent cognitions of their meaning, and that these cognitions become the accessories. Or again, in this last view some say that the meaning of the whole passage does not become realized until one has judged the meaning of each constituent, including the last one: when all have been experienced, the recollection of their totality produces knowledge of the meaning of the whole passage.

Others hold that, when a constituent is first heard a judgment about its meaning arises and is immediately destroyed, but when the final judgment concerning the meaning of the whole sentence occurs each of these judgments about the constituents arises again. This is not admitted by Vyomaśiva, on the ground that a word, once it has produced a judgment linking that word to its proper object, does not repeat the production.

Still others argue that the constituent sounds remain in *ākāśa* until all of them are uttered and, after the last is uttered, create a sentence of which all the consitutent sounds are parts. Vyomaśiva

rejects this as being contrary to reason. Words uttered previously do not remain until the last word is uttered.

A different view is that the hearing of a constituent word produces the recollection of the conventional meaning of that word, which in turn produces a judgment about the meaning of the constituent now presented. Such a judgment destroys a previous judgment about a previously presented word, but nevertheless the several judgments become associated and together produce the judgment about the meaning of the whole sentence. Vyomaśiva shows that there is no such association between later judgments and the earlier ones.

The proper account, he says, is this: The constituent sound is heard, producing a trace, and also invoking recollection of the conventional meaning of the sound. This produces a judgment about the meaning of the word. This judgment, and the recollection, are destroyed in the next moment, and a new sound is heard, with the same attendant results. This goes on until the last word is reached. The impressions produced in each give rise to the recollection of the meaning of all the constituent words. The last word, which is qualified by this recollection, is treated as a sentence and from this the cognition of the meaning of the sentence rises.

In some cases, where the meaning of the constituents becomes known through some means of valid knowledge other than perception, the meaning of a sentence may be understood even without the sentence being identified as a whole. Vyomaśiva cites a passage from Kumārila's *Ślokavārttika*[61] and shows that by observing white color from a distance, inferring the presence thereof *horseness* from hearing a neighing in that direction, and discovering the existence of running by hearing the stamping of the hoofs, the sense of a whole expression is arrived at, namely to the effect that a white horse is running, even though no sentence is actually formulated to express this meaning. Similarly, even though one does recognize that a sentence has been uttered he may not know its meaning. For example, the passages in the works of poets do not convey any sense until the meaning of the well-known words used by them is understood. Thus, it is concluded that the sense of the sentence has to be understood as conditioned by the requirements of expectation (*ākāṅkṣā*), appropriateness (*yogyatā*), and proximity (*sannidhi*) as applied to its constituents.

Vyomaśiva also attacks the views of the Prābhākaras, who hold the view called *anvitābhidhāna*.[62]

(Pp. 599-602) Turning to the members of the 5 membered

argument form, Vyomaśiva glosses Praśastapāda's definition of the first member, remarking that without this member, the sense of the argument is not made available, no discussion could take place relating to the topic at hand and communication would fail. The requirement that the hypothesis must not be contradictory Vyomaśiva takes to mean that it should not contradict perception, inference, or one's own school's view as well as the view being set forth.

115. (Pp. 606-07) Vyomaśiva says that there are subdivisions of the 4 kinds of *asiddha* fallacy Praśastapāda lists. Many of these are in Bhāsarvajña's list (cf. p. 403), Vyomaśiva says that all these subvarieties fall under one or another of the main 4. Some say that certain of them, e.g., a fallacy called *tadbhāvāsiddha* and one called *anumeyāsiddha*, belong under inference for oneself rather than inference for others. Vyomaśiva rejects this, holding that the same fallacies of the *hetu* may arise in either of the two kinds of inference.

Vyomaśiva finds four subvarieties of *viruddha*, namely

(a) where the *hetu* occurs in a part of the *vp*;
(b) where an *sp* is known but the *hetu* pervades *vp*;
(c) where no *sp* is known and *hetu* pervades *vp*;
(d) where an *sp* is known and *hetu* occurs in a part of *vp*

Likewise, he offers four varieties of the *anaikāntika* or *saṃdigdha* fallacy:

(a) whre the *h*, while pervading *sp*, occurs in a part of *vp*;
(b) where the *h* occurs in a part of *sp*, but pervades *vp*;
(c) where *h* occurs in parts of both *sp* and *vp*;
(d) (*pakṣatrayavṛtti*)

Praśastapāda, in discussing the *saṃdigdha* fallacy, remarks that if one actually had a case where there were two contradictory *hetus* of equal authority one would not have this kind of fallacy; one would not even have a case of doubt, for in such a case no definite proposition could be formulated. Does Praśastapāda mean by speaking of "two contradictory *hetus*" to classify such a case under *viruddha*? No, says Vyomaśiva; he means precisely that this is not a case of *viruddha*. Vyomaśiva thinks of it as a kind of *kālātyayāpadiṣṭa* case.

118. (Pp. 614-15) The fourth member is necessary, for it shows that the *hetu* has an unsublated content. It establishes internal pervasion (*antarvyāpti*) and *parāmarśa*, and these are crucial to the success of inference. The third member, for example, cannot (as some suppose) prove internal pervasion, that is, cannot show that there is no way of refuting the alleged pervasion. What the third member shows is that there is external pervasion (*bahirvyāpti*)

between *h* and *s*, but another member is required to assert unsublated content and the absence of contrary reasons.

121. (Pp. 620-21) In commenting on memory, Praśastapāda remarks that recollection must have for its object a thing that has passed away from the time when it operated (*atīta*). This does not, however, mean that the object must have been destroyed. It may still exist, but not at the same place as when the original perception which produced the memory grasped it. Therefore *atīta* must be taken to mean that recollection has as its object something the experience of which has passed. But does this mean that memory has an object? No, says Vyomaśiva. It does not function with respect to external objects by itself, for the sense organs are inoperative; the object remembered may no longer exist at all.

122. (P. 621) Intuition is a special kind of mental trace. Knowledge of this sort must be classed as mediate, since the sense organs do not operate. (Presumably it is to be counted as inferential).

123. (Pp. 623-24) The knowledge of the *siddhas* is sometimes to be counted as of the "sagelike" kind of inference treated in the preceding section, sometimes as perceptual.

124-27. (Pp. 627-28) Pleasure, pain, desire, and aversion are to be treated as distinct from judgments, though the causes for all are the same. Just as effects produced by cooking differ, though the ultimate stuff (atoms) is the same, so, due to differences in the causal conditions, the effects inhering in selves differ, but may still be distinguished in kind.

133. (Pp. 638-42) That merit is a quality of selves is proved through inference and verbal testimony. Some say that since merit is an intrinsic character of them *karma* is unavoidable; furthermore death would be impossible. If merit is an extrinsic quality of atoms then it cannot be created through our activities. Too, enjoymen of the fruits of one person's meritorious deeds would be shared by everyone. Others say that merit has no locus, but this is absurd. Vyomaśiva gives a detailed account of the means of obtaining merit, describing various sacrificial rites.

149-53. (P. 653) One motion must inhere in one substance only; otherwise, when one substance moves the others involved should move as well. Therefore in cases where many objects move at once the causes there must be many; several quick impacts, undiscriminated by us because of their practical simultaneity, are needed to move several objects aggregated together.

154. (Pp. 678-89) Some hold that all universals are existent in every individual, but are not apprehended everywhere for want

of that which would manifest them. Vyomaśiva rejects this view. He says that the relation between a universal and the individual manifesting it is of the nature of nondifference. A universal has no cause for its production, since its substrata do not all exist at the same time. Universals are all-pervasive, but yet are found to be manifested where the manifesting individuals are located.

161. (Pp. 698-99) Inherence is perceptible by indeterminate perception, e.g., when one judges concerning the contacts among the parts of a whole.

22. VĀCASPATI MIŚRA

This writer is well known to students of Indian philosophy, for he contributed to a variety of different systems, and each of his contributions seems to have been highly thought of. In this respect he is very unusual among Indian philosophers. Traditionally, he is held to have been a Maithili Brahmin, and to have lived somewhere near the Nepal frontier. There is a village in that region named Bhāmā, which is supposed to have been named after Vācaspati's daughter, to whom he commemorated the Advaita commentary entitled *Bhāmatī*.[1] On the other hand, Dinesh Chandra Bhattacharya mentions a second tradition, according to which he belonged to Badagāma in Pargana Niśśakapūrakūḍhā, which is now in the Saharṣa district on the eastern boundary of Darbhanga.[2]

Umesh Mishra identifies Vācaspati's village as Thāṛhī, in the Darbhanga district, "where even today there is a tank associated with his wife's name, on the side of which, it is believed, he had his house."[3] Mishra offers some interesting further arguments supporting Vācaspati's being a Maithili.

Mishra reconstructs the order of Vācaspati's several written works as follows:

(1) *Nyāyakaṇikā*, a commentary on Maṇḍana Miśra's *Vidhiviveka*, in the Pūrvamīmāṃsā tradition.

(2) (*Brahma*) *Tattvasamīkṣā*, of which we know nothing, since it has been lost. It is conjectured that this also is a commentary on Maṇḍana Miśra, specifically on his *Brahmasiddhi*.[4]

(3) *Tattvabindu*, an original work concerning the theory of meaning as understood in the Pūrvamīmāṃsā system.

(4) *Nyāyasūcīnibandha*, a work in which the author attempts to fix the number and order of the *Nyāyasūtras*.

(5) *Nyāyavārttikatātparyaṭīkā*, the commentary on Uddyotakara's

Nyāyavārttika. (Mishra guesses Vacaspati must have been 75 years old when this was written).

(6) *Tattvakaumudī* on Īśvarakṛṣṇa's *Sāṃkhyakārikās.*

(7) *Tattvavaiśāradī* on Patañjali's *Yogasūtra* and its *Bhāṣya* written by Vyāsa.

(8) *Bhāmatī* on Śaṃkara's *Brahmasūtrabhāṣya.*

A good deal of scholarly debate has centered around the question of Vācaspati's date, which is of especial interest since his works figure in the history of several schools; thus if his date could be firmly established it would help greatly in determining the chronology of several traditions. Vācaspati actually gives the date 898 for one of his works, the *Nyāyasūcīnibandha.* The scholars have debated as to whether this date is to be understood as Śaka or Vikrama 898. If the latter, then the work was written in *saṃvat* 898, i.e., A.D. 841. But there are several reasons why this date is unlikely. Paul Hacker[5] argues, for example, that since Vācaspati quotes and names the work *Nyāyamañjarī* he cannot precede Jayanta Bhaṭṭa; thus the date must be Śaka 898, i.e., A.D. 976. This argument is shaky, since it seems clear that the *Nyāyamañjarī* Vācaspati quotes is not Jayanta's but his teacher Trilocana's creation.[6] Dineshchandra Bhattacharya[7] gives some additional arguments, the cumulative weight of which would seem to settle the question. His arguments are these: the first one seems specious, but the others are telling. (1) Since Vācaspati refutes Bhāskara in his *Bhāmatī* he must be 10th century at earliest. (However, current research indicates Bhāskara to have been contemporaneous with Śaṃkara, i.e., early 8th century)[8] (2) Vācaspati quotes Dharmottara respectfully, so must have lived a century or so after him. Since Dharmottara is 9th century, Vācaspati must be 10th. (3) Vācaspati refers to the *Bhūṣaṇa,* so must be after Bhāsarvajña. (4) According to Vardhamāna's commentary on *Kiraṇāvalī,* Vācaspati lived after Vyomaśiva. (5) Śridhara seems not to know Vācaspati.

On the other hand, Narahari[9] argues that since Udayana comments on Vācaspati's work, and Udayana lived around the end of the 10th century, the Śaka date for Vācaspati must be wrong, and we should opt for the earlier one. The basis for this is Narahari's opinion that it is extremely unusual for one man to comment on a contemporary's work.

Vācaspati wrote two works in the *Nyāya* tradition. One, the *Nyāyasūcīnibandha,* is merely a *sūtrapāṭha* and table of contents to the *Nyāyasūtras.* The other is an extensive commentary on Uddyotakara's *Nyāyavārttika,* entitled (*Nyāyavārttika*) *Tātparyaṭīkā,* summarized below

by Bimal Krishna Matilal. There are a number of references in later literature to a "Tātparyācārya." Presumably these are references to Vācaspati, although some scholars believe there was another writer who is referred to under this title.

NYĀYAVĀRTTIKATĀTPARYAṬĪKĀ

Summarized by Bimal Krishna Matilal,
(E refers to the edition in Kashi Sanskrit Series 24 by Rajeshwara Sastri Dravid, Banaras 1925) (B2569).

BOOK ONE: PORTION[10] ONE

Topic I: Subject Matter and Purpose

Introductory Section. (E1-5) The science (*śāstra*) which is the cause of perfection of mankind was composed by Akṣapāda and explained by Pakṣilasvāmin. In spite of this Uddyotakara wrote the *Vārttika* because people were misled by the bad reasonings of logicians like Dignāga, etc.

This science causes the betterment of mankind not directly, but only by informing them about the nature (*tattva*) of the basic categories, viz., instruments of valid knowledge, etc.

We know objects (*prameya*) through some accredited source or instrument of knowledge. But how can we be certain that something is an accredited instrument? This leads to the following question: How is the validity of a cognition established? Is the validity intrinsic (*svataḥ*) to the cognition itself, or extrinsic (*parataḥ*)? Furthermore, is cognition self-revelatory (*svaprakāśa*) or not self-revelatory (*parataḥ-prakāśa*)? If validity is said to be intrinsic then a valid instrument of cognition (i.e., an instrument of valid cognition) would be indistinguishable from an invalid one. If it is said to be extrinsic, i.e., established by another cognition, we will eventually invite an infinite regress. Vātsyāyana answered this problem in his introductory remarks. Vācaspati answers them below.

(E11) To ordinary persons, cessation of pain may be welcome but not cessation of pleasure. So why should ordinary persons try for a state of release which involves final cessation of pleasure as well as of pain?

Answer: Our science is meant for the wise. Wise men will strive for such a state. Even ordinary persons can be made wise through the teachings of this science.

(E11-16) A valid cognition (or its instrument) is invariably

associated with its object. This is proved by the empirical fact that a valid cognition produces activities that are successful. Thus the validity of a cognition (or its instrument) is not intrinsic or self-evident, but is established through an inference. This inference is: This cognition is valid because it belongs to the class (*tajjātīya*) of those cognitions which produce successful activity. The invariable concomitance of such activity with the validity of cognition is established by empirical instances in which after knowing an object our activity with regard to that object proceeds successfully. The validity of scripture is thus inferrible in a general way by observing the invariable association of the validity of the prescriptions of medical scriptures, or of charms, with successful activity. (E.g., taking some medicine cures a disease). Scriptural knowledge is on the same level with the knowledge of medical writings, or charms, inasmuch as they are all derived from reliable persons.

The validity of cognition is established by inference. But inference itself is another type of cognition, and its instrument is another instrument of cognition. Thus how are we to establish the validity of that particular inference which is in operation there? *Answer*: In certain cases of inference, where all doubts about its being wrong are eliminated, validity becomes self-evident or intrinsic. The present case is an inference of this type. Thus, we do not necessarily have to end with an infinite regress.

(Pp. 17ff.) Dignāga's view: Objects are of two types, pure particulars (*svalakṣaṇa*) and universals (*sāmānya*). To be real means to function or to do something (*arthakriyākāritva*). Pure particulars are real because they alone function in some way or other. They are momentary point-instants. Only perception can grasp them. Inference, on the other hand, depends on the knowledge of invariable concomitance between a *hetu* and a *sādhya*. Since such relations can only obtain between universals, not between pure particulars, inference can only grasp universals. Universals are unreal, although they are objectified through imagination (*kalpanā*), which is produced by our beginningless desire (*anādivāsanā*). Since there are only two types of objects, of which perception grasps only particular point-instants and inference grasps only universals, it never happens that a single object is grasped by more than one instrument of cognition.

Uddyotakara answered this objection. Vācaspati adds: An instrument of cognition is itself not wise enough to consider the fact that since this object has already been grasped by another instrument it is "none of its business!" If it is said that the knower, being a sentient being, can be wise enough to withdraw from some useless

activity, it may be pointed out that the knower might desire to know a favorite object of his again and again, and hence through his desire the instrument of cognition might operate upon the same object as another has. Even where the knower may not desire to know something (say, something painful), the instrument of cognition will also be operative if it is capable of doing so.

(Pp. 21ff.) Memory, even when it is correct, is not considered valid knowledge, and its instrument is not considered an instrument of valid knowing, according to the Nyāya school, because in ordinary language people use the word "valid cognition" (*pramā*) to denote that correct cognition which is other than memory cognition.

(P. 34) Blue and yellow are *contrary* to each other in the sense that in one the other is absent and vice versa. Thus, denial of blue does not necessarily imply affirmation of yellow. But presence (*bhāva*) and absence (*abhāva*) are *contradictory* to each other in the sense that the one *is* just the absence of the other. Thus, denial of absence is nothing else but presence.

(Pp. 39-40) The word *nyāya* stands for the *hetu's* having the well-known 5 (or 4) characteristics (viz., presence in the *sp*, etc.). Or, it might stand for the statement of a systematic argument with 5 steps by which the desired proposition is established.

(Pp. 43-45) *Opponent*: Wherever the hypothesis to be proved is supposed (by Vātsyāyana) to be contradicted by perception, the *hetu* in all such cases does not become concomitant with the *sādhya*. Hence they should be regarded as cases of nonconcomitant *hetu*. (The objector is Dignāga). *Answer*: Where the relation of pervasion is derived in a general way (*sarvopasaṃhāreṇa*) without examining each specific case, Vātsyāyana's example can very well be a clear case of contradiction by perception. Relations like causal relations are not to be regarded as pervasion, according to Vācaspati, but the unconditional (*anaupādhika*) natural (*svābhāvika*) relation is what is called pervasion. Thus, if such a natural relation is ascertained in a general way between *createdness* and absence of warmth then the inference "fire is not warm, because it is created" can be contradicted directly by perception without our knowing that the concomitance is neither universal nor necessary.

(Pp. 54ff.) Uddyotakara says that a sentence is a cluster of words which gives rise to a specific judgment where the cognition of the meaning of the last word heard is aided by the memory of the meanings of the previous words heard in sequence. Vācaspati explains. The cognition produced by hearing a sentence is a qualificative cognition, where the memory of the adjectival words supplies

the qualifiers and the memory of the substantival word supplies the qualificand. The meaning of a sentence is grasped when we have such a qualificative cognition. The words by themselves cannot give rise to such a qualificative cognition, but can do so through the intermediate operation of producing the memory cognitions of the references of individual words (*padārthasmaraṇa*), just as a log of wood cannot cook by itself but can do so through the intermediate operation of burning. Moreover, since a disconnected word-complex like "ten apples, six cakes," etc. does not give any connected sentence meaning, we also need for the understanding of a connected sentence meaning the following elements as accessories: semantical competency (*yogyatā*), syntactic expectancy (*ākāṅkṣā*), and contiguity in space and time (*āsatti*).

2. (E81-82) Brevity is the soul of *sūtra*. On this ground, an opponent's view that the second *sūtra* of Akṣapāda should be divided into 2 different *sūtras* for the sake of explaining that different sufferings, birth, etc. are related by way of cause and effect, is rejected. To divide it is to make it unnecessarily cumbrous. Besides, Uddyotakara read it as one *sūtra*.

(E85-91) *Opponent* (a Yogācāra): In error, "this is silver," the (internal) consciousness itself (which alone is real) appears as externalized. *Answer*: No. The cognition which contradicts such error (*bādhakapratyaya*) can only show that the so-called external object (i.e. silver) is not present there, but it cannot reveal that it is all internal consciousness and that there is no external consciousness. For more arguments see Book IV.

The *asatkhyāti* theory of error: Error reveals nonexistent objects. *Answer*: If "nonexistent" means not present on the occasion in question, it is all right with the Naiyāyikas. If you say that the object (i.e. silver) can neither be described as existent nor as nonexistent, you are wrong. During the time of error it is describable as existent, and when error is removed it is describable as nonexistent.

The *anirvacanīyakhyāti* theory of the Advaitins is also rejected, since there is plurality of objects and generic properties are real.

The *akhyāti* theory: No cognition can be erroneous. The so-called "error" in "this is silver" is but a mixture of perception ("this") and memory ("silver"), and due to the nongrasping of this difference we call it an error. *Answer*: Since we do proceed to try to obtain the silver, the error cannot be simply due to the nongrasping of difference, but it should be due to the wrong gasping of their identity. Our activity toward something proceeds from the

knowledge of that thing and not from ignorance. Hence the non-grasping of difference (*bhedāgraha*) should be explained as the (wrong) attribution (*āropa*) of one to the other. (For details on the theory of error, Vācaspati refers to another book of his, the *Tattvasamīkṣā*, perhaps, which is a lost commentary on Maṇḍana Miśra's *Brahmasiddhi*).

Topic II: The Instruments of Knowledge

3. (E102-04) According to Vācaspati, the following causal chain typically occurs. First sense perception of water; then the Propositional perception of water as water; then the awakening of the memory impression that water of the same class quenched thirst before; then recollection to that effect; then synthetic consideration (*parāmarśa*) that this water belongs to the same class; and then the inference that this water is acceptable because it will quench thirst. Thus perception as an instrument of knowledge finally leads to the inference of the acceptability of water as a result or fruit (*phala*).

What do we infer here? If "acceptability" is explained as the causal efficacy (*śakti*) for quenching thirst, construed as an imperceptible property of water, then this goes against the Nyāya doctrine which does not admit causal efficacy as separate entity. Vācaspati explains. There is no causal efficacy apart from the totality of all the causal conditions. Although the cause, viz, water, is perceived and not inferred, we do infer the *effective connection* of the cause with the effect (*kārya-sambandhitā*). The "effective connection" is this: the cause must be present before the effect is produced. Such connection is not perceived when the water is perceived, and hence there is need for inference.

Of the three activities of accepting, avoiding, and being neutral, some want to identify the third with second. Vācaspati rejects such a view and maintains the trichotomy.

4. (E108-16) In favor of Uddyotakara's third kind of sense-object-connection, inherence-in - what - inheres-in-what-is-contact, Vācaspati argues that without this we cannot explain the perception of universals: those who accept similarity as a separate category different from the category of universals cannot explain the perception of such similarity.

Several arguments are given to prove that there is a relation called inherence which relates a whole with its parts, qualities with the things qualified, motions with what moves, universals with individuals they characterize. In cognitions like "the cloth is white," "the cloth is a substance," "the cloth is in the threads", two different

entities are experienced as related. If you say that the subject and predicate actually express an identical entity, then the predicate would be felt as repetitive (in sense) to the subject. But it is not actually felt to be repetitive. Moreover, a word like "white" expresses white color, and through this the word refers to white things. But this is not to say that white color and the things are identical, but that they are related. To avoid an infinite regress, inherence cannot be said to have another inherence or a relation to connect it with its substratum. Thus for the perception of inherence we admit the relation of qualifier and qualificand (*viśeṣaṇaviśeṣyabhāva*) as the sense-object connection.

Opponent: When there is no pot on the ground we see the *mere* ground and hence the so-called absence of pot is identical with its locus, the ground. *Answer*: "The mere ground" means nothing but the ground qualified by some absence of something, like pot! When an entity which is perceptible is not perceived somewhere, we can be said to perceive its absence there, because such an absence is known only when the senses are operating.

Objection: Since remembering of the counterpositive, viz., pot, intervenes, the sense-object connection by itself does not produce the cognition of absence. Hence absence cannot be perceived. *Answer*: Nyāya accepts the propositional (qualificative or constructive: *savikalpaka*) perception where remembering of words, names, etc. intervenes but acts only as an accessory to produce the resulting perception. In the case of perceiving an absence, memory of the counterpositive is such an accessory only.

Vācaspati also rejects the view that nonapprehension (*anupalabdhi*) is a separate instrument through which we grasp absences. It is suggested that when a person is asked later whether Mr. *X* was present in the room or not, and he replies, after recollecting his experience in the room, that there was no Mr. *X*, such absence must be known, not through any sense-object connection, but through a separate instrument. Vācaspati replies that this absence of Mr. *X* is known through inference.

(E117-18) Vācaspati quotes several verses from Dignāga. They state that the sense of sight grasps the object without reaching it, because otherwise we should not see distant objects. If it is maintained that the sense of sight goes out to reach the object, Dignāga remarks that we should have seen it even by closing our eyes when the organ has left to reach the object. Uddyotakara has answered this critique of Dignāga's.

(E123) *Opponent*: Pleasure and pain are indistinguishable from judgments because they arise from identical causal complexes. *Answer*: No. Cold touch sometimes produces pleasure but not always. Cold touch always, however, produces a judgment that this touch is cold. Hence there must be additional factors which help the cold touch to produce sometimes pleasure, sometimes pain.

(E125) Vācaspati says there are 2 types of perception: (1) nonpropositional (nonconceptualized, nonqualificative, *nirvikalpaka*) and (2) propositional (conceptualized, qualificative, *savikalpaka*). In the definition of perception, the word *avyapadeśya* refers to the first type, and the word *vyavasāyātmaka*—"well-defined"—refers to the second.

Some say: The *nirvikalpaka* or nonpropositional perception is a myth. There cannot be any cognition where a word expressing an object does not appear at all. Vācaspati quotes from Bhartṛhari in this connection and thinks that Vātsyāyana repudiates such a view while explaining the significance of the word *avyapadeśya.*

Those who hold that the word and its *denotatum* are identical can be countered in this way. In the perception of children and deaf and dumb persons words do not appear but objects do. To appeal to the memory-impression of words from previous births is not a happy solution. Such impressions from previous births might be very vague (*aviśada*), while the objects revealed in perception are quite clear and prominent (*viśada*). It is improper to identify a vague thing with something which is not at all vague. If the memory-impressions are claimed to be as clear as the object and hence identical, then a child would use the word as soon as he sees the object for the first time. Moreover, words generally refer to their objects, but sometimes, when accompanied by such elements as quotation marks (*iti* in Sanskrit), they refer to words themselves. A blind man would have grasped color, since he can grasp the word "color," and the deaf would have grasped the word, since he can see color.

(E130-33) The correctness of other types of judgment such as inference, those gotten from verbal authority, etc., is entirely dependent upon the correctness of some perception or other, which must be at the root of all the other sources of cognition. Thus the word *avyabhicārin*, "correct," has been used in the definition of perception only. Moreover, doubt as a sense report is also excluded by the mention of this requirement. Although Vātsyāyana and Uddyotakara did not explain this word in this way, Vācaspati says that he has followed his teacher Trilocana in this matter. Thus

the word *vyavasāyātmaka*, "well-defined," is used not to exclude doubt but to refer to propositional perception.

(E133ff.) *Opponent*: The propositional cognition (*savikalpaka*) cannot be called perception, since it involves imaginative construction by the mind through which names, etc., are added. Words refer to universals which are not real, but mere imaginative constructs devoid of causal efficiency (*arthakriyākāritva*). The real objects are pure particulars, the causally efficient point-instants. Sense perception arises directly from such real objects. Thus propositional perception is merely the adding of the imaginative qualifications to the object through our primeval faculty of mental construction.

From a distance we sometimes grasp the bare existence of a tree, say, and do not cognize it as a tree or as a substance. This also proves that these are imaginative constructions through recollection of words.

Recollection of words also produces a break in the operation of the senses and the object. What is revealed through recollection is the past object which is different from the present object. If you say that recollection is only an accessory and not an obstacle to perception, then even the blindfolded person would have seen color through memory.

Answer: Adding of names, etc., is not always imaginative construction, because there is no incompatibility between a judgment's being produced by a sensory stimulus and its revealing the connection of its object with names, etc. It will also be shown that universals are not always fictitious, and that there are stable and durable (*sthira*) objects.[11] Recollection of the previous state of the object grasped at the time of learning its name helps to determine the present state of the object, and thus it becomes an accessory in producing the propositional judgment. Recollection of the name, however, is an accidental factor which happens along with it; the name is certainly not an essential factor in the constructive perception, nor is it an impediment to such a perception.

(E150-53) In criticism of Vasubandhu's definition of perception, Vācaspati adds: Cognitions which are formless reveal objects which are different from the cognitions which grasp them. Since cause and effect cannot be simultaneous, the object to be grasped cannot cause the perception of itself at the moment of its existence. If perception is produced at the next moment when the object is destroyed, then such a cognition cannot be called a (true) perception because it reveals a nonexistent object.

(E153-55) *Kalpanā* or conceptualization is, according to Dignāga, either adding a proper name, such as "this is Ḍittha," or adding a general name, such as "this is a cow," or adding a quality-name, such as "this is white," or adding a motion-name, such as "this is cooking," or adding a substance-name, i.e., qualifying it with a substance, as in "this has horns."

The definition given by Jaimini is either too wide to exclude perceptual error where the sense-object-connection might be said to be all right, or it is too narrow to include recognition (*pratyabhijñā*) as in "this is the same Devadatta (whom I saw before)," where there cannot be the right kind of connection between the senses and the object of the previous experience.

5. (E156ff.) Inference must be regarded as a valid instrument of cognition, because otherwise either we invite a vicious circle by trying to prove the validity of inference through another inference, or we fail to express a meaningful proposition unless we admit speech or verbal testimony as a separate source of cognition apart from perception, so that understanding of the meaning of the sentence (inference is invalid) may be in order.

Opponent: The relation of invariable concomitance between *h* and *s* is based upon 2 fundamental relations: (1) identity, and (2) cause-and-effect. We cannot be certain of such invariable concomitance just by the observation of supporting instances and nonobservation of contrary instances. The cause-and-effect relation is known through the method of agreement (*anvaya*) and difference (*vyatireka*); the identity relation is known when contradiction becomes impossible.

Answer: It is difficult to be certain about the cause-and-effect relation because there can always be a doubt as to whether smoke can be caused, even in the absence of fire, by some supernatural condition like a goblin (*piśāca*). The temporality (*kādācitkatva*) of some events only proves that they are dependent upon something else, but this cannot remove the doubt that smoke sometimes can be caused by some hitherto undiscovered element.

Moreover, to infer cause from effect means to infer a former event from a present event, but such inference might not always help those persons who want to make use of fire inferring it from smoke.

Furthermore, we infer the color from the taste of a thing. Color and taste are not identical, nor is one the cause of the other, for they are simultaneous. Thus the thesis that identity and cause-and-effect are the only relations in inference is falsified.

Opponent: Since all objects are strings of momentary events, the present color-moment is caused by the preceding moment of simultaneous color, taste, touch, and smell. Thus, the present taste-moment makes us infer its cause, the preceding color-moment, which also causes the present, simultaneous color-moment. Thus color is inferred from the taste indirectly through the causal relation. This also explains the inference of fire from smoke.

Answer: To infer the preceding color-moment from the present taste-moment is to infer cause from effect, but to infer the present, simultaneous color-moment from the preceding color-moment is to infer the effect from the cause. Hence you admit a third type of relation besides the two you mentioned.

Moreover, if two objects are identical, how can one of them be the *hetu* and the other the *sādhya*? Besides, the concept of a tree and the concept of a fig tree are not exactly identical.

There are also actual inferences like that of today's sunrise from yesterday's sunrise, etc., where no question of cause-and-effect or identity can arise.

To justify the mention of the fourfold relation of inference in the *Vaiśeṣikasūtras*, Vācaspati says that since not all relations are helpful for inference it may be desirable to mention some, at leas,t which do help inference. The list is not supposed to be exhaustive.

In the same fashion one can dismiss the theory of sevenfold inference of the Sāṃkhya school.

Thus, the relation that the *hetu* must have to the *sādhya* is one which is natural and invariable (*niyata*). Smoke has such a relation with fire, but fire does not have such a relation with smoke since fire became related to smoke through the condition of wet fuel. Thus this relation is conditional (*aupādhika*) and not natural.

We do not always doubt the invariableness of the relation of smoke with fire, since if we want fire we unquestioningly proceed to the place where we see smoke. Although there is the possibility of doubt, actual doubt does not always occur.

(E174ff.) *Objection*: It is difficult to make valid inference of effect from its cause. When all the causal conditions (*sāmagrī*) are present, the effect must follow, but in such cases the effect will be perceived rather than inferred.

Answer: The effect, say the cloth, is not perceived at the moment it is produced. It is perceived only in the third or fourth moment thereafter. Therefore, there is scope for inference in the first moment. Moreover, a person who is deaf can validly infer the sound—the effect—by beating a drum with his hand.

(E180ff.) Vācaspati quotes several verses from Dignāga where the latter contends that what we infer is not the fire as a property of smoke, nor is it the relation of smoke with fire. What we infer, he says, is the place (*deśa*) as qualified by the property fire.

Vācaspati explains Uddyotakara's view. What we infer is the fire as a special property of a special type of smoke. Fire does not characterize all sorts of smoke, but certain types of smoke which remain connected with their place of origin while going upwards.

6. (E196ff.) *Objection*: When a southerner (who has not seen a camel), after hearing the description of a camel, "a camel is such-and-such an animal," later on coming to the North sees and identifies an object as a camel, such identification cannot be said to be through comparison, since the element of similarity is absent. If this identifying procedure is not a separate source of cognition but a sequence of verbal testimony (viz., description), perception, and inference (viz., the denotative relation between the word and the object camel is inferred), then the identification of *gayal* (i.e., a *gavaya*) through its similarity with a cow can be similarly explained.

Answer : The word "similarity" (*sādharmya*) in the *sūtra* comprises (by an extension of meaning or *lakṣaṇā*) properties (*dharma*) in general, and not just similar properties. Thus even the said identification of a camel might be said to be through a separate instrument, i.e., comparison, where general properties are given in the description.

Unlike such words as "the sky," etc. (i.e., singular terms), *gayal* is a common name or general term which refers not to a single object but to many, i.e., this *gayal*, that *gayal* and so on. Thus the denotative relation between *gayal* and *gayals* is a bit indirect and complex inasmuch as it comprises the common character *gayalness*. The cognition of such a denotative relation is not possible until one of the *relata*, *gayalness*, is comprehended through perception. A verbal report expressing the similarity of a *gayal* to a cow is, however, unable to reveal the nature of *gayalness*. Hence perception aided by the memory of the verbal report is necessary for the full comprehension of the denotative function. The ordinary description of a camel might, on the other hand, reveal the nature of *camelness*, whereupon a separate instrument of cognition may not be necessary.

7-8. (E201-07) *Opponent* (Dignāga): Verbal testimony is not a separate instrument of true cognition since we know it by a correct means through an inference such as "this speech is correct, because it comes from a reliable person."

Answer: The purpose of the *sūtra* has been misunderstood. The validity of verbal testimony may be known through inference, but the object-complex expressed by the speech is not known by inference or by perception.

Opponent: The speech, as the effect, lets us infer the speaker's knowledge, which comprises the object-complex.

Answer: If we just infer that the speaker has some knowledge since he speaks, it is not useful for revealing the object-complex. The object-complex is actually revealed by the *speech* (i.e., the utterance) by reminding us of the individual meanings of the different words and being helped by such properties as expectancy, appropriateness, and connectedness. The knowledge of the speaker characterized by such an object-complex may be inferred later in order to prove the validity of speech. Although there is no invariable relation (*avinābhāva*) between speech (i.e., words) and objects, they are related in some way so that one can make the other known, just as although the eye is different from blue color, it reveals blue color all the same.

For details, Vācaspati refers to his own book called *Tattvabindu*.

Topic III: The Objects of Knowledge

12. (P. 221) The sense organs are themselves not perceptible through the senses. They are inferrable as being the causes of particular sense perceptions. In this way the definition of each sense organ can be formed. Like the word *paṃkaja* lotus, literally born in mud), words like *ghrāṇa* etc., i.e., "(organ of) smell,"etc., combine their etymological meanings with their popular meanings. Since the general definition of sense organ will not apply to the sense-object-connection, the specific definition of each organ will not overextend to include such a connection.

14. (Pp. 244ff.) According to Vācaspati the reference to "objects" in this *sūtra* is intended as a definition of the fourth *prameya*, i.e., the objects of valid cognition. The rest of the *sūtra* supplies only certain details of information. This is meant for a friendly listener and not for a critical opponent, and hence the *sūtra* has been stated in this imprecise manner.

15. (Pp. 233ff.) *Objection*: To give synonyms is not to define a concept. *Answer*: There are 2 types of words: one refers to a class of individuals, such as "cow"; and the other denotes a particular object, such as "Caitra." The former type is capable of supplying the differentiating mark and hence giving synonyms might be taken as providing the definition of some concept.

The Sāṃkhya says: The *buddhi* itself is unconscious. But due to close proximity with the self which is unmodifiable but ever-conscious, the *buddhi* receives the image of consciousness and thereby reveals an object, just as the moon, having no light of its own but receiving light from the sun, reveals the object. Thus *buddhi* and consciousness are two different entities.

Answer: Since consciousness is not modifiable there cannot be any reflection of it. Thus the *buddhi* cannot reflect consciousness in the way the moon reflects the light of the sun. Hence, consciousness, being unmodifiable, cannot accomplish anything either by itself or in collaboration with anything else, which means that objects can never be revealed.

17. (P. 236) There are two types of activity. The first one (viz., operation of speech) causes knowledge and through it gives rise to merit or demerit. The second one causes action and can be subdivided into two: one being produced by the body and the other by the internal organ.

20. (Pp. 237-38) Although fruition, i.e., pleasure and pain, results directly from activity, defects cause not only activity but also pleasure and pain through activity. This has been indicated by the additional word "defect" in the *sūtra*. The soil of the self being irrigated with the water of defect, the seeds of merit and demerit bear fruits of pleasure and pain.

21. (P. 238) *Bādhanā* stands for the feeling of frustration. It refers primarily to pain and secondarily to the body, etc., which are necessary factors for the feeling of pain. Disinterestedness (*nirveda*) means the knowledge that there is no need of all these. Detachment (*vairāgya*) means the knowledge (or attitude) of neutrality or indifference toward all these objects although they are presented to the senses.

22. (Pp. 238ff.) Pleasure or happiness is really a quality of the self, and hence not identical with the self. Similarly, consciousness is a quality of the self. States of consciousness, i.e., judgments, emerge and go out of existence and hence they cannot be identified with the self which is supposed to be permanent and nonemergent. In the judgment "I know the pot" the three elements—the knower, the known object, and knowledge—are registered as distinct entities. Such registration cannot be due to error, since apart from possessing these emergent states of consciousness the self nowhere appears to be naturally conscious. Moreover, in the state of deep sleep (*suṣupti*) no state of consciousness emerges, since no object is revealed. Thus this is a time when the self is without consciousness.

Topic IV: The Preliminaries of Argument

23. (Pp. 243-60) Vācaspati follows Uddyotakara's interpretation of the *sūtra* (I.1.23) dealing with doubt.

Apprehension of a head, arms, etc., along with the nonapprehension of crookedness, holes, etc, is the cognitional instrument which authenticates that something is a human being. The contradictory situation, i.e., apprehension of crookedness, holes, etc. along with the nonapprehension of head, arms, etc., is the instrument which contradicts that the object is a human being. Doubt can arise when there is the joint absence of both the authenticating instrument (*sādhakapramāṇa*) and the contradicting instrument (*bādhakapramāṇa*). It is this joint absence which is meant by the reference to "perception or failure to perceive" under the third of Uddyotakara's headings (cf. p. 315).

Objection: How can an uncommon or exclusive (*asādhāraṇa*) property give rise to doubt? The character of being produced by disjunction is a property which belongs exclusively to sound. This might give rise to a question or a desire to know what sound is. But it cannot give rise to doubt.

Answer: The character of being produced by disjunction is absent from substance, quality, and motion, all of which are subsumed under the generic notion of existence (*sattā*). Now, since sound is an existent entity and has this uncommon property, the following doubt may very well be in order: "Perhaps it is a quality, and not a substance or a motion," or "perhaps it is a substance, and not a quality or a motion," etc. Thus even an uncommon property, just by being absent from other well-known objects, may bring to mind various possibilities indirectly.

On the point that some disjunctions might be produced by another disjunction, Vācaspati adds: The example might be provided thus. Motion in the parts (say, in pot-halves) produces disjunction or separation of the pot-halves whereupon another separation of the pot-half from its previous location in *ākāśa* takes place. This second separation differs from the first in that it destroys the original substance, the pot, and hence it is not directly produced by the motion but by the first disjunction. This example, is, however, vulnerable to objection, because one might insist that the movement in the parts itself produces the first as well as the second separation, just as movement in the petals of a lotus (when it is blooming) produces separation of the petals as well as the (second) separation of the petal from its previous location in *ākāśa*

(although it does not destroy the original substance, the lotus). Another plausible example is the following: Movement in the fingers produces separation of the fingers from the tree, which in its turn separates the hand (or the whole body) from the tree. Here the second separation cannot be said to be produced by the movement, which characterizes not the hand, or the body, but only the fingers.

The uncommon or exclusive property of sound may now be explained as follows: It is the property of being preceded by only such disjunctions as are its *direct* causes. But the above example of disjunction is preceded also (in addition) by such other disjunctions (e.g., disjunction of the fingers from their location in *ākāśa*) as are not its causes.

Topic V: Tenets

31. (Pp. 268ff.) Vācaspati follows Uddyotakara and criticizes Vātsyāyana's interpretation of the *sūtra*. The fourth type of tenet is that concept or proposition which is not mentioned in the *Nyāya-sūtras*, but which is nevertheless examined later on.

Topic VI: The Nature of an Argument

33. (Pp. 267ff.) Uddyotakara criticizes Vasubandhu's definition of the hypothesis (the *pakṣa*, in the Buddhists' phraseology), as well as Dignāga's definition. Vācaspati remarks that Dignāga adds several qualifications which are lacking in Vasubandhu's definition. That those qualifications are redundant is proved by Vasubandhu's silence about them, as well as by Uddyotakara's arguments.

34. (Pp. 274ff.) Vācaspati contends that while the specific definition (*viśeṣalakṣaṇa*) of *hetu* (the second member) is explicitly stated in the *sūtra* the general definition (*sāmānyalakṣaṇa*) of it is also implied. The expression *hetu* is the *definiendum*, and *sādhyasādhana* ("prover of what is to be proved") is the *definiens* constituting the general definition.

In explaining Uddyotakara's remarks Vācaspati quotes and explains several verses which constitute Dignāga's critique of the definition of *hetu* given in *sūtra* I.1.34. Since the *h* is the same as the property common to the (positive) examples, the use of the ablative in the *sūtra* is wrong (i.e., the "because" in the second member "Because that mountain possesses smoke"). If *hetu* means the statement of the *h*, then, although the ablative can be justified, the

definition becomes overextensive so as to include the fourth member. In fact, says Dignāga, it would be proper to say that the second member is the statement of the common property (only). Uddyotakara answered this objection, says Vācaspati. He also says that some of Dignāga's own definitions can be criticized in a similar manner. That the use of case-endings (such as ablative or genitive) depends on the desire of the speaker is admitted also by the Grammarians.

35. (Pp. 281ff.) Here is an example of the negative (*avīta*) *hetu*: The living body is not soulless, because otherwise it would have been lifeless.

Objection: Why should one not infer affirmatively the existence of the self as the inherence cause of desires, etc., which in turn cause life, i.e. breathing, etc.? *Answer*: The affirmative inference reveals only that there is some inherence cause of desire, etc. To infer the self as a separate substance we need to use the inference through elimination (*pariśeṣa*), and this type of inference involves the roundabout way of negative inference.

Vācaspati quotes from Dignāga, who mentions and explains 9 types of *hetu* and pseudo-*hetu*.

37. (Pp. 296ff.) Vācaspati criticizes the examples cited by Vātsyāyana under NS I.1.36-37. Both belong to these "affirmative-negative" type of inference. But it is wrong to mention only the negative or dissimilar example where a corroborative example is available. Vātsyāyana's examples might suggest this wrong procedure.

38. (Pp. 298ff.) To exhibit that the *h* is properly established through concomitance it is necessary to use the fourth step, the application, just as it is necessary to use the third step in order to show the nature of the concomitance.

39. (Pp. 300ff.) The fifth step, the conclusion, is not redundant because merely repetitive of the first. While the first puts forward a proposition tentatively requiring confirmation, the fifth puts it forward as fully established, uncontradicted, and unchallenged by any rival hypothesis.

Topic VII: Nature of the Subsidiary Processes in Proving an Argument

40. (Pp. 304ff.) Although doubt generally precedes the desire to know, sometimes it also follows. This second type of doubt, which follows the desire to know, plays a part in *tarka*. By *tarka* one of the two possibilities which the doubt takes notice of is to be accepted as established, the other being rejected.

BOOK ONE: PORTION TWO

Topic VIII: Controversy

1. (Pp. 313ff.) How can one find fault with the valid instrument of cognition (*pramāṇa*) and with reasoning (*tarka*)? *Answer*: One finds fault with the person misusing them, not with the valid instruments themselves, just as we find fault with the person who waves a sharp axe in the air and cuts nothing.

3. (Pp. 329ff.) *Objection*: A view cannot be technically called a thesis (*pakṣa*) unless there is some attempt to establish it. Hence the view of a person who is cavilling is neither a thesis nor a counter-thesis (*pratipakṣa*). *Answer*: The view in quesion may be said to be indirectly established by the refutation of the rival thesis. Or, capability of being a thesis is enough, actual attempts to establish it are not required.

Topic IX: Fallacies of the Hetu

5. (Pp. 336ff.) The two terms *savyabhicāra* and *anaikāntika* are synonymous, and yet either one can be used as a definition of the other. To the person who knows the meaning of the one term, this will supply the definition of the other.

6. (Pp. 338ff.) Vātsyāyana's example of the second type, i.e., the *viruddha* fallacy, cannot be taken to be a case of the *kālātyayāpadiṣṭa* also, because in the latter case the contradictory thesis is established through a stronger reason, while in the former both the propositions are equally plausible, one contradicting the other, and as a result there is indecision.

8. (Pp. 344ff.) The *sādhyasama* is divided by Vācaspati into 4 varieties: (1) *svarūpāsiddha*, where *h* is absent from *p* completely; (2) *ekadeśāsiddha*, where *h* is partially absent from *p*; (3) *āśrayāsiddha*, where *p* is imaginary, and (4) *anyathāsiddha*, where the concomitance has not been established.

9. (Pp. 346ff.) The *kālātyayāpadiṣṭa* fallacy is explained as follows. *Kāla* means time. The proper time for adducing the *hetu* is the time when we have a doubt about the occurrence of the *sādhya* in the *pakṣa*. But when the possibility of such occurrence is contradicted by perception or some such stronger evidence, doubt either is destroyed or cannot arise and consequently the *h* in such cases is called "mistimed."

The Buddhist has explained "mistimed" wrongly as the *hetu* which is adduced late or not in the proper order. *Example*: "Sound is noneternal, like a pot." Why? "Because it is created." Here the statement of the example precedes the statement of the *hetu*. The Buddhist then goes on to criticize this wrong interpretation which he himself has suggested: If there is expectancy (*ākāṃkṣā*) then this belated statement of the *h* is not mistimed; if there is not, it will be one of the ways of losing an argument (*nigrahasthāna*). But this critique is based on a misunderstanding.

Topic X: *Quibble*

12. (Pp. 349ff.) When the denotation of a word like "cow," etc. (i.e., a common name) is fixed by convention it does not refer to any particular individual directly "by grabbing it by the horn" ! The conventionally fixed meanings of such words are universals. The word in use refers to a particular individual through such a universal and through such circumstances as the context, the speaker, etc. Thus it is no fault of the speaker that such a general word has an ambiguous meaning which includes objects not intended by him. It is rather the fault of the convention that fixes the meaning.

16. (P. 353) In "the platforms are shouting," "shouting" supplies the predicate while "the platforms" supplies the subject. Since the predicate constitutes the principal theme of assertion and the subject is somewhat secondary in importance, it is the subject which is interpreted as having a secondary sense. The quibble in this case negates the predicate. But in "the boy wears *nava* (new, nine) blanket(s)," the quibble negates not the whole of the predicate but simply part of it, viz., the number nine. In this way, the first type of quibble is to be differentiated from the third type.

Topic XI: *Mistakes in Argumentation Due to the Incapacity of the Arguer*

18. (Pp. 353ff.) A futile rejoinder is usually given unknowingly. But at times, when the atheist attacks the authority of the Vedas (for example), the person defending the authority of the Vedas might knowingly take recourse to a futile rejoinder just to stave off the atheistic tendency of the audience (in case he has forgotten for the time being the correct answer).

BOOK TWO: PORTION ONE

Topic XIII: Instruments of Knowledge

16. (Pp. 364ff.) *Objection*: What is real is constant and uniform in nature. What is not so is unreal. Snakeness is not real by comparison with a rope, since the rope sometimes appears as a snake and sometimes as a rope. Similarly, if something appears sometimes as a valid instrument of cognition, and sometimes as an object of such an instrument, then it is not real: thus such pedicates as "valid instrument" or "object of a valid instrument" do not describe real things.

Answer: When we weigh gold, the balance is a valid instrument, i.e., a means for knowing the weight of gold. But when after doubting the accuracy of a balance, we weigh a piece of gold (whose weight has been ascertained by a *reliable* balance) by the balance in question, the whole procedure is designed to prove the accuracy of that balance. In that case, the balance itself becomes the object of an instrument, and not an instrument itself.

Objection: If we can know the valid instrument without the help of any further instrument of cognition, then why should you not concede that the objects (*prameya*) can also be grasped without any instrument? Otherwise we run into either an infinite regress or a paradox of cutting a knife with itself *Answer*: No. One particular instrument is grasped with the help of another particular instrument as the instrument for that grasping. There is no infinite regress, because it is not the case that an instrument of knowing must always be known first in order that it may act as instrument.

Topic XV: The Whole

32. (Pp. 380-400) Vācaspati gives a long and elaborate argument to show that the whole exists as something different from its parts.

Objection: Everything that resides in something else can do so either in all parts of that thing or in some parts of it. This cannot be said of the whole because we would have to speak of parts of parts.

Answer: These alternatives are not applicable to a material substance occurring in another material substance. When there is no gap between the atoms of the one and those of the other, we might say that one occurs in the other depending upon the popular use. Actually the whole might be said to occur in parts by its own

nature (*svarūpatas*), just as the thread of a garland might be said to occur in the flowers by its own nature. The difference lies in this: In the garland case there are parts of the thread also which reside in the flowers, while in the former this feature is absent.

Objection: To assert the reality of wholes leads to the following contradictions. (a) If only the hand moves, the whole (body) can be said to move and not to move (since the legs are not moving). (b) If when a part moves the whole is said not to move, the whole and the parts cannot be said to be related by inherence (technically, there will be *yutasiddhi*, "separable connection," between them). (c) When one part is covered, the whole will not be apprehended since some part is covered, and will be apprehended since other parts are visible. (d) If the whole is said to be apprehended through the grasping of all the parts then none but the omniscient will be able to grasp it, and if it can be grasped through the grasping of only some parts then we shall always be able to apprehend a very large thing by seeing just a tiny part of it. (e) When one part is colored red, the whole might appear as red and not red at the same time.

Answer: (a) The whole (body) does not move when the hand moves, because the whole is different from the parts. (b) If "separably connected" means simply different, then we agree with you on the point. But if the word means "to exist as separated," then we disagree. The whole cannot exist apart from the parts (which means that there is the relation of inherence connecting them), although it is possible that while a part moves the whole might not move. (c) Although a part is covered, there is no nonapprehension of the whole since other parts are visible. (d) Largeness is a kind of size belonging to the body (whole) and hence a quality of the whole. Since the quality and what is qualified are different according to the Nyāya, we need not (although sometimes we may) grasp largeness as soon as we grasp the body (whole). (e) Diversity in the objects is established through the diversity of our experiences. Since red color and its absence are perceived side by side and not at the same point of space and time, there is no contradiction.

Objection: That which resides in many must be manifold (*nānā*). Thus the whole, which is said to reside in many parts, must be manifold, i.e. must not be one and the same everywhere.

Answer: To be one and to reside in many are not contradictory properties.

(Pp. 400ff.) *Objection*: Universals (*sāmānya*) like *cowness*, etc., are figments of the imagination. If *cowness* were real then everything would be called a cow since you suppose *cowness* to exist

everywhere. If *cowness* does not exist everywhere, how can there be any connection between *cowness* and a cow when a *new* cow is born ?

Answer: Just as there are discrete entities (according to some Buddhists) like color, taste, smell, etc., which can exist at the same point of time, or just as there are (according to Vaiśeṣika) the entities time, space, *ākāśa*, and selves which are ubiquitous but distinct and not mutually related, similarly *cowness*, etc., can exist everywhere without being related to everything. Thus everything should not be called a cow. "A cow is just born" is to be interpreted in philosopher's language as "an individual is just determined (*avachinna*) by *cowness* and *inherence*."

Topic XVI: Inference

37. (Pp. 402ff.) Vātsyāyana's two examples, viz., inferring rain from the fullness of the river and inferring the peacock from its shouting, are both, according to Vācaspati, examples of the *śeṣavat* type of inference. To infer future rain from the moving of the ants with their eggs is a debatable example.

Topic XVIII: Present Time

39. (Pp. 403ff.) The body which is connected with time-calibration marked by a larger number of sunsets and sunrises is called "old" in comparison with the body which is connected with time-calibration marked by a smaller number of sunsets and sunrises and which as a result is called "young." These properties, youth and old age, are produced by the connection of those bodies with big-time.

Opponent: Such properties may very well be due to the connection of those bodies with the motions of the sun without there being any intermediate entity like time to connect them.

Answer: No. There is no other ubiquitous entity except time to connect them. The service of the sky, self, etc., cannot be requisitioned for this purpose, because they are accepted as entities for different purposes. Similarly, our notions of simultaneity, slowness, etc. are due to big-time.

Topic XIX: Verbal Testimony

52-56. (Pp. 412ff.) Unlike a *hetu*, such as smoke, from which we *infer*, say, fire, words or the meanings of words are not such that

we can infer the meaning of the sentence from them. Thus understanding of the meaning of the sentence is not an inferential cognition.

Objection: Sentence meaning is nothing else but the mutual connection of the component word meanings. Such connection is inferred from the individual word meanings, of which we are reminded by the individual words; this process is aided by the 3 properties of syntactic expectancy, semantic competency, and proximity in space and time.

Answer: No. The words themselves are competent to produce the understanding of the sentence through the intermediate operation (*avāntaravyāpāra*) by which they produce the memory of their meanings. The 3 properties—syntactic expectancy and the others—are mere accessories to this process and their existence is recognized only when the sentence meaning is understood. Thus, since words cannot characterize the subject of the proposed inferential judgment, we cannot say that sentence meaning is inferentially understood. Moreover, it is useless to try to construe the proposed inferential judgment rigorously so as to avoid defects, since we see that people do not consciously apply the process of inference to learn the meaning of a sentence, but understand the sentence meaning quickly after hearing the utterance. The validity of such a scriptural sentence, such as "heaven is such-and-such a pleasure" is, in fact, inferred from the trustworthiness of the speaker. But this does not imply that the meaning of the sentence also is inferentially known.

The relationship between word and meaning is not natural (*svābhāvika*), but is fixed by convention (and such convention is introduced by God at the beginning of the era). Otherwise, the same word *yava* cannot express barley for Aryans and pepper for Mlecchas.

BOOK TWO: PORTION TWO

Topic XXI: Defense of the Fourfoldness of the Instruments of Knowledge

6. (Pp. 438-39) Śabara's example of presumption is criticized. *Mīmāṃsaka* : From "Caitra who is alive is not in this room" we know that Caitra must be outside through presumption, which is a separate instrument of cognition. It is not inference, for here we have an apparent contradiction in the premises, viz., "Caitra is in this world which includes this room too" and "Caitra is not in this room." *Vācaspati's answer*: Here one part speaks of an un-

qualified presence of Caitra while the other part speaks of a qualified (*sāvacchinna*) absence of him. Thus there is no contradiction. It is actually a case of inference with a negative premise.

12. (P. 440) Deviating from Vātsyāyana, Vācaspati speaks of 4 types of absence. First it is divided into 2: mutual absence and relational absence. The second is again subdivided into 3: prior absence, posterior absence (or destruction), and constant absence.

Topic XXII: Sound is Noneternal

13. (Pp. 447) *Opponent*: The same sound is recognized as different on different occasions. The different properties, such as loudness, sharpness, etc., do not belong to sound naturally, but are conditioned by some external element.

Answer: No external element, by virtue of which the above properties can be said to be conditioned, is experienced or otherwise shown to accompany sound.

Opponent: Even if the said properties naturally belong to sound and are distinct, the qualificand, i.e., sound, cannot be said to be distinct or different on different occasions.

Answer: Neither can we say that the qualificand, sound, is the same everywhere. Just as recognition of the same property *cowness* is possible in different loci, i.e., the individual cows, so recognition of the same property *g-ness* (the sound universally present in utterances of the syllable "ga") is possible even when thier loci (the utterances) are different.

Topic XXIV: The Meaning of Words

57. (Pp. 469ff.) Vācaspati thinks that the opponent here is an upholder of the *sphoṭa* theory. *The opponent says*: Letters do not denote objects, since they cannot have any connection with the objects either singly or collectively. Nor can it be said that the last letter being aided by the memory impressions of previous letters heard in order can denote objects, since a memory impression of a letter can bring about the memory of the letter only, not of an object. Thus we admit that the word is different from the constituent letter sounds that we hear, and that it is called *sphoṭa* which becomes meaningful and denotes objects.

Answer: Meaningful words consist of letter sounds themselves, and not of anything like *sphoṭa*, since we do not perceive anything but the cluster of letter sounds when the meaning is revealed by a

word. A cluster of letter sounds when it gives rise to a unified meaning (i.e., denotes an object) is called a word.

Although this position involves logical circularity, Vācaspati gets around it by saying that the psychological procedure need not be circular.

It is also possible to have two different words (e.g., *nadī*—"river" and *dīna*—"poor") from the same letters by changing the order, even if we do not accept an intermediate entity like *sphoṭa*. A word is not merely the letter sounds, but the letter sounds as conditioned (*upahita*) by their order of arrangement, by their decrease or increase, etc. If this condition (*upādhi*) differs, we can very well have different words.

65. (Pp. 483ff.)[12] *Opponent*: Words refer to universals, but universals are imaginative constructions. To say universals are real leads to the following absurdities. (a) Since *cowness* is accepted as eternal it cannot be contained in noneternal particular cows as its substratum. To have a substratum means to be acted upon in some way or other. How can an eternal entity be acted upon? (b) How can the same particular, i.e., the same pure particular, contain different universals like treeness, *siṃśapā-ness*, *substanceness*, etc.? Thus universals are of the nature of the exclusion of what is other (*tadanyavyāvṛtti*, or *apoha*). This is proved by the following fact: *cowness* can be connected with both assertion ("this is a cow") and denial ("that is not a cow"). It is also felt as involving an exclusion (*vyāvṛtti*).

Answer: That universals like cowness are real has been proved in NS II.2.58. There is a natural relation between cowness and particular cows. Hence, cowness does not need to be acted upon in order to have a substrate. Nor is it impossible for different universals to occur in one thing, because one may very well be inclusive of the other. "This is a cow" means "Cowness is connected with the present individual," and "This is not a cow" implies "Cowness is connected with a past or a future individual (although it is not connected with the present individual)."

Moreover, to explain the fact that the activity of a person becomes successful when directed toward an external real object, while the judgment that prompts such activity grasps only an internal fiction (i.e., a universal), you have to say that we proceed to obtain the external because of our overlooking the difference between the internal and the external (*bhedāgraha*). But if the real point-instant (or external pure particular) is not at all grasped by the so-called constructive cognition (*vikalpa*), how can such overlooking be possible?

Or else, we might overlook the difference of the particular cow (the pure particular) from any other imaginarily constructed thing in the world. In addition, the imagined object should also be regarded as momentary and unique on each occasion, since it changes with every change in the activity of our constructive imagination. Otherwise, it would be a product of imgination. Thus, just as each unique moment of pleasure and pain cannot be expressed in language, the imagined object cannot be expressed in language. And what is not expressible in language cannot be the object of the constructive perception (*vikalpa*). Hence the so-called imagined object cannot be grasped by constructive perception.

BOOK THREE: PORTION ONE

Topic XXV: The Self Is Not the Sense Organs

1. (Pp. 497ff.) *Opponent*: Our constructive cognition of the self (*ātmavikalpa*) does not grasp an external self as its object, because there is no such thing as an external self.

Answer: If there were no such thing as an external self, you could not negate its connection with our cognition. If you say that we impute externality to the unreal self through error and then deny it later, then we answer that we cannot impute something without knowing what it is that we are imputing it to. And if the unreal self is said to be known somehow, we cannot say that it is entirely nonexistent.

BOOK THREE: PORTION TWO

Topic XXXII: Destruction and Production

10. (Pp. 541ff.) *Buddhist*: Everything that exists is momentary, just as our body is in a flux of continuous change and decay. The growth and decay of our bodies is perceptible, which indicates that it changes every moment. Moments should be conceived as the smallest indivisible unit of time.

(Pp. 546ff.) *Buddhist*: The object, born of its cause, will be either decaying or undecaying. If decaying, it should decay without waiting for any cause to produce its decay. If undecaying, nothing can destroy it, since nothing can destroy a thing's nature. Moreover, is destruction different from the destroyed object or not? If not different, then the object (being identical with destruction) must

continue to be, i.e., continue to be causally efficacious. If different, then let there be destruction and it cannot possibly do any harm to the object which is there already. Moreover, if destruction is a *must* for the object, it will happen without depending on anything.

Answer: Similar dialectical arguments can very well be directed against the Buddhist theory of momentariness, according to which objects are self-destructible at every moment. E.g., does destructibility mean identity with destruction ? Or capability for being destroyed ? If the first, the object supposed to be destroyed will be indestructible and hence eternal, since destruction cannot be further destroyed. If the second, it is all right with us, the Naiyāyikas.

Just as it is the nature of fire that it causes burning (and not cooling), similarly it is the nature of destruction that when it appears, the object (e.g., the pot) disappears. Just as production of the sprout means disappearance of its prior absence, so destruction of the pot means disappearance of the pot. It is true that destruction is a must for the object, but this does not imply that destruction is automatic and not caused by some external element. What is supposed to be the function of the hammer which is seen to smash the pot ? If destruction is natural and happens at every moment, why, then, do we see, with our physical eyes, the pot continuing for an extended period until the hammer falls on it ?

(Pp. 551ff.) *Buddhist*: To be means to do something or other, i.e., to be causally efficacious. Everything that is causally efficacious produces its effect either simultaneously (*yugapat*) or nonsimultaneously (*krama*), there being no third alternative. Now if a stable (*sthira*) object is causally efficacious it must produce its effects simultaneously, i.e., all at a time and not one after another, because a truly competent (*samartha*) object must go to work without waiting for anything else. If it has to wait for accessories it is not the really competent one but the accessories are. In the same way it can be shown that the stable object cannot produce its effect nonsimultaneously either. Thus, the stable entity is a myth. Everything is in a flux. Although the seed is not seen to sprout at each moment, we conclude that the seed which is efficacious to produce a sprout is the seed at that particular moment when in collaboration with air, earth, and heat it is going to sprout at the next moment. And a new seed comes into existence each moment as long as the seed appears to remain without sprouting.

Answer: We might also say: everything that is efficacious becomes so either depending on something (*sāpekṣa*) or without

depending on anything, there being no third alternative. If the ultimate seed-moment which produces a sprout in the next moment does so independently, the penultimate seed-moment which produces the ultimate one will be independent, and by the same token all the previous seed-moments will be so independent. Thus, let the farmers sit idle without cultivating the land. It is better, therefore, to admit that the ultimate seed-moment must sprout depending on something. Even a truly competent entity may wait until the elements on which it depends are there before going to work. If you say that the accessories are useless, there cannot be plurality of effects from the same seed-moment. You also admit that the seed-moment not only produces the sprout-moment but also the earth-moment, water-moment, etc. Thus, since waiting for accessories is not possible if the entity is momentary, we conclude that some entities stay for several moments.

BOOK FOUR: PORTION ONE

Topic XXXVII: *Causation*

21. (Pp. 595-96) To the question "If God is full of mercy, why does He make people suffer?" Vācaspati answers: Although God is full of mercy, He is powerless to change the natural law (*niyati*) that bad effects must follow from bad actions.

Seeing some products, such as a pot, etc., being produced by some sentient being or other, we doubt whether other products, such as trees, mountains, the universe etc., are also produced by some sentient being or not. This doubt eventually leads us to infer the existence of God as their creator.

Objection: Sentience is possible only when there is a body, sense organs, etc. But since in the case of the supposed creator of trees, the universe, etc., bodies and so forth are not obtainable, your inference is wrong.

Answer: Bodies, sense organs, and the like are required only for the kind of sentience which is noneternal and is a product. Since our creator is supposed to have eternal and noncaused knowledge, bodies, etc., are not needed. Such knowledge is not possible in human beings with limited power. Instead of positing many supernatural beings for creating different entities like trees, mountains, etc., we apply the logic of parsimony (*lāghava*) and infer one omniscient being, i.e., God.

Nonperception of God cannot establish His nonexistence, since (unlike the hare's horn) God is incapable of being perceived.

Objection: An inference contradicting your inference may be established. Trees, earth, etc., are not made by an omniscient Being, because they are existent, like a pot, which is existent and not made by an omniscient Being. Hence your inference is wrong.

Answer: Your counter inference implies that these trees, mountains, etc. are made by nonomniscient Beings. But this is wrong, since it is not possible for human beings like us with limited knowledge and power to create this big universe.

Topic XXXVIII: Some Things Eternal, Others Not

41. (Pp. 615ff.) *Opponent*: Everything is identical with the One, Brahman. Diversified names and forms are not different from the self-illuminating consciousness which grasps them. Consciousness and its object are identical in principle; their difference is only an illusory appearance created by *avidyā*. The conscious subject is not different from consciousness, self-revelation being its very nature. Thus, undifferentiated consciousness is the only reality.

Answer: The plurality and diversity of objects are established by our uncontradicted perception. Hence scriptural passages like "There is only one and not many," etc., have to be explained by taking recourse to secondary meanings.

BOOK FOUR: PORTION TWO

Topic XLVI: The Falsity of Everything Refuted

33. (Pp. 655ff.) *Opponent*: There is no external reality apart from the inner flow of consciousness (*vijñāna*). The so-called external object grasped by consciousness is not different from consciousness itself. The object (*artha*) can neither become the content (*viṣaya*) of consciousness just because of its existence—for even objects which are nonexistent, such as a hare's horn, can be such a content—nor can it become the content of consciousness by being the cause of a consciousness-moment, since the eyes cause perception but certainly do not form its content. Nor can the object become the content just because of the fact that it is produced by the same causal complex as produces the consciousness-moment, since the past as well as the future object can very well become the content although they are nonexistent (at the present) and hence not produced at

that moment. For similar reasons, the object cannot become the content of consciousness just by being the container of the result (*phala*) of consciousness. Thus, in fact, consciousness is formless (*nirākāra*) and cannot reveal any external object, nor can it establish such an object. Even if you accept that a state of consciousness has a form (*ākāra*) which is identical with its content and that the content being (i) caused by and (ii) similar to the object proves that there are exernal objects, we answer no. Even this theory of *sākāravijñāna* (consciousness having a form) cannot establish the external object.

If you say that a state of consciousness which grasps blue color, being a temporary happening, must be dependent upon something else, namely the external object blue, the answer is still no. The temporality of such a happening would also be possible if that state of consciousness is produced by the previous state in the same series of consciousness-states. Since each state in this series is unique, there is no knowing which state will produce what.

Answer: There are external objects. As long as you cannot show beyond doubt that the grasped object and the grasping consciousness are always related by identity (*abheda*), your point is not proved. Some state consciousness does grasp the blue object as also something big and separate. This bigness and separateness cannot belong to the consciousness itself, for this would be obviously absurd. Thus you have to admit that something else is also revealed in consciousness apart from consciousness itself. If you say that since the (external) object and consciousness are two entirely unrelated principles it is wrong to say that one belongs to the other, we reply that just as a relation can be said to belong to its relatum, similarly the object revealed can be said to belong to consciousness and no further relation is needed to connect them.

Vācaspati adds further: The theory that since the object is revealed only when the cognition is revealed the two are identical, is also wrong. If cognition of the blue means not only the revelation of blue but also the revelation of the cognition itself, then it invites the absurdity of the same thing being the action as well as the object of that action. Revelation of the cognition is one thing inasmuch as it is a mental perception, and the revelation of the object is another thing since it is, sometimes, a sensory perception. Vācaspati refers to his book *Nyāyakaṇikā* for further arguments.

23. ADHYĀYANA

Durveka Miśra, the author of the Buddhist work *Dharmottara-pradīpa*, quotes this author as having written a work entitled *Rucitīkā*, which was probably a commentary on the *Nyāyabhāṣya*. The passage Durveka quotes deals with Adhyāyana's views on the analysis of the first member of the argument form, the hypothesis. Adhyāyana appears to think that properly this member ought not to be construed as speaking of an object with its property, since initially all we cognize is a place with a property and only later do we remember the pervasion and so identify the object for what it is. Thus the usual form in which the hypothesis is given—"that mountain has fire"—is "only in order to establish confidence in the object to be established," to follow Umesh Mishra's translation.[1]

24. VITTOKA

"Ratnakīrti mentions the view of one Āstika Naiyāyika named Vittoka, in connection with Īśvarasiddhi in his *Īśvarasādhanadūṣaṇa*. There is a long passage attributed, as it seems, to Vittoka. Though it is the first time that we have come across his name, yet from the nature of the quotation and the importance given to his view by Ratnakīrti, it seems that Vittoka wrote some treatise on Nyāya directly, or wrote a commentary on the *Sūtra* or the *Nyāyabhāṣya*. While quoting the opinion of Vittoka, Ratnakīrti refers to him later than Vācaspati, and so he may be placed after Vācaspati.

"Vittoka is a peculiar name, like Uṃveka, or Uvveka for Maṇḍana Mishra. Either this is a pseudo-name of some author in which case he may be a Maithila, or he might have been a Kashmiri where such names were very common and which was a centre of Nyāyaśāstra between the 7th and the 9th centuries."[1]

25. NARASIMHA

This author is also referred to in the same work of Ratnakīrti mentioned in the preceding quotation. Mishra[1] estimates his date as prior to that of Trilocana, on the basis of the order in which Ratnakīrti lists their names; Steinkellner,[2] on the other hand, gives the 10th century.

26. ŚRĪDHARA

This writer flourished in A.D. 991, according to his own testimony. He is celebrated by Bengalis as the "first Bengali writer on philosophy."[1] He tells us he came from "Bhuriśreṣtha in Rārhā (modern Bhursut) in Howrah district," and identifies his parents as Bāladeva and Acchokā, his patron as Pandudāsa, a Kāyastha. Gopinath Kaviraj[2] finds that Śrīdhara wrote four books—a Vedānta work entitled *Advayasiddhi*, a Mīmāṃsā work entitled *Tattvaprabodha*, a work called *Tattvasaṃvādini*, and the *Nyāyakandali*, on Praśastapāda's *Padārthadharmasaṃgraha*. Kaviraj thinks that this work is also called *Saṃgrahaṭikā*, and Śrīdhara certainly refers to such a work but since the reference is in the *Nyāyakandalī* it seems unlikely they are the same. V. Varadachari[3] identifies this *Saṃgrahaṭīkā* as the *Vyomavatī*, summarized above. Kaviraj[4] also makes the surprising statement that the *Nyāyakandali* was popular in Kashmir and used by scholars in Mithilā, but not used in Bengal.[5]

In the summary which follows, "E" refers to the edition by Durgadhara Jha Sarma (B 1056), "T" to the translation by Ganganatha Jha (B1053). Numbering corresponds to the Praśastapāda summary.

NYĀYAKANDALĪ on Praśastapāda's PADĀRTHA-DHARMASAMGRAHA

Summary by Karl H. Potter

Introductory Section. (El-3; T 1-2) The commentary begins with a salutation to God, the Highest Puruṣa. This is followed by a discussion of the function of such an invocation; an objector points out that an invocation cannot alone remove obstacles to the success of a philosophical work, since such worthy commentaries as the *Nyāyabhāṣya* and *Mīmāṃsāsūtrabhāṣya* lack an invocation. Śrīdhara's reply to this is that the authors *did* offer an invocation. (Presumably he thinks they were lost.)

(E6-8; T6-7) The purpose of Praśastapāda's work is to help the reader get his desired end, namely release. The views of other schools about the nature of release are listed. (1) Release is the cessation of knowledge together with cessation of *vāsanās* or traces. This is wrong, for it would involve self-annhiilation. (2) Release is the gaining of pure, contentless knowledge upon the destruction

of the *vāsanās*. This is rejected, since the gaining of knowledge must result from the gathering together of traces (*bhāvanā*) and this presupposes a permanent locus for the traces; if the locus were evanescent, then that which is bound is different from that which becomes free. (3) Release occurs when, after the *puruṣa* and *prakṛti* are discriminated and the *prakṛti* ceases functioning, *puruṣa* remains in its natural state. This is rejected, since *prakṛti* can never cease functioning, being intrinsically active, and it is not true that *prakṛti* functions only for the purpose of *puruṣa* and stops when *puruṣa's* purposes have been satisfied. (4) Release is eternal and perfect pleasure. We are promised a refutation of this later.

(E9-15; T8-12) The proper definition of release is: the absolute cessation of what is disadvantageous (*ahita*). The "logicians" (*tārkikas*) try to prove this by a syllogism, but it is fallacious; the real proof is from the Upanishads (*vedānta*). This brings forth objections about the authority of scripture. Śrīdhara's view on this is that scripture is authoritative on questions the other instruments of knowledge are incapable of answering; that its authority is independent of the speaker's trustworthiness just as perception's authority is independent of the trustworthiness of the sense organ, though in both cases we check the instrument to make sure it is functioning properly; that scriptural statements need not always be interpreted as injunctive, and may refer to things even though those things are not introduced in connection with anything to be done or accomplished.

2. (E16-18; T13-15) In order to meet an objection of Maṇḍana Miśra that to view liberation as the cessation of a specific quality is to view it as self-annihilation, Śrīdhara argues that destruction of pain results in the self's true nature (*svarūpa*) being realized. If someone should object that liberation as defined here means complete absence of pleasure and so cannot be desired by men, Śrīdhara answers that because pleasures are fleeting and always mixed with pain men will desire their cessation also.

Absence (*abhāva*) is omitted from Praśastapāda's list of categories, not because there is no such category, but because it is dependent (*paratantra*) on the other 6 categories of being (*bhāva*).

(E18-19; T16-17) Since the *Vaiśeṣikasūtras* say that merit (*dharma*) leads to release, and Praśastapāda says that true knowledge does, there is an inconsistency, and this text resolves it. The knowledge produces merit, which in turn produces release. It is the renunciation of objects, produced by the aversion to them, which we gain from understanding those objects fully, that leads to liberation.

3. (E21-26; T19-22) *Objection*: There is another substance, namely darkness (*tamas*). It has the qualities of color, number, size, separateness, farness and nearness, contact and disjunction. *Answer*: Darkness is not a substance because its atoms do not have touch and therefore cannot combine to form a substance. *Objector*: Then let us define darkness as the absence of light. *Answer*: This will not do either. Black is a positive color, and not the absence of color. Furthermore, an absence is only knowable when its counter-positive has been perceived in the locus where we now find the absence; but in the case of darkness, its counterpositive, *light*, has not been found to occupy the locus, as we sometimes find darkness independently of any previous knowledge of light. Therefore, Śrīdhara concludes that darkness must be a color. He explains away the apparent presence of qualities in this color, and explains the *sūtra* which speaks of darkness as absence of light as being intended to identify the conditions for the perception of the color black.

7. (E30-36; T26-30) The precise sense in which being (*sattā*) "functions only to assimilate" is this: though being does differentiate itself from other things (like anything else) yet it cannot differentiate its own locus from any (positive) thing. *Objection*: We should define "being" as the character a thing has by virtue of being known by an instrument of knowledge. *Answer*: Then there would be mutual dependence, since a thing cannot be known by an instrument of knowledge unless it exists, but in your view it cannot exist unless it is known by an instrument. *Objector*: No, what I mean is that existent things should be defined as knowable by valid instruments. *Answer*: This is verbal; as long as you admit some character common to all positive things I am with you. *Objector*: But I get no common idea at all when I inspect a mountain and a mustard-seed; they seem quite dissimilar. *Answer*: Well, you will admit that both a mountain and a mustard-seed are different from a non-entity, so in that respect they are similar. *Objection*: The mark of being is the capacity of a thing to do something for a purpose (*arthakriyākāritva*). *Answer*: No, on pain of infinite regress; for the action the thing does must have another action to bring it into existence, etc.

Objection: Since when we observe, say, fire and water we are not aware of any similarity between them, it follows that there is no such universal as substanceness. *Answer*: Their common characteristic is merely their capacity to be independently cognized. The mere assignation of a conventional name or description provides the basis for the recognition of a universal. True, not every person

can see individuals as falling under appropriate universals: for example, one who is not aware that a person was born of Brahmin parents may not see him as a Brahmin. But that in no way mitigates against their being universals.

In speaking of lower universals as both universal and individuating (*viśeṣa*), Śrīdhara says, Praśastapāda is using the term "universal" in a primary sense but "individuating" only in a secondary sense.

9. (E37-38; T32-34) The term "inseparable" (*yutasiddha*) is explained: it means that two things have separate loci, that is, that the loci of the two things, though they may be distinct, nevertheless always occur together as "container and contained." This restriction is supposed to exclude the pair merit and pleasure, which always occur in the same locus, a self, but are not related by the container-contained relationship. The requirement also excludes the pair consisting of a thing and the word denoting it, since a word is not "in" the thing but rather expresses the thing.

15. (E44; T41) *Objection*: The text here speaks of a "relationship with existence." Now this thing that is related to existence: is it already existent or not before it comes into this relation? If so, then *existence* does no work, since we have presupposed it. If the thing is not existent, like the hare's horn, then we certainly cannot have *existence* related to it. *Answer*: Since eternal things are beginningless, there can be no time before their arising with respect to which the objector's question could arise. As for noneternal things, it is their prior nonexistence which causes them to become related to existence.

17. (E47-48; T44) The "etc." at the end of the text includes the dimension of the dyad, the all-pervadingness of *ākāśa*, time, space, and self, the last sound, the dimension of the internal organ, before and after, the separateness of two things and the dimension of the whole; these things cannot be causal conditions.

19. (E49-53; T45-49) As for why universals do not have universals inhering in them, Śrīdhara merely says this would be "undesirable." Individuators have no universals, since if they did there would be an infinite regress, for we should need an individuator to tell which class a given individuator belongs to, etc. And likewise if inherence had a universal we should have to postulate another inherence to connect inherence with its universal, *ad infinitum*.

Objection: If universals do not have universals in them, then how can you say that *cowness* and *horseness*, e.g., both have *existence*?

Answer: We impose (*adhyāropa*) it on them. *Objector*: But this imposition is thus erroneous ! *Answer*: Certainly it is; who denies it ? To attribute unity to diverse things is obviously to have a false idea about them. *Objector*: Well, then, by the same token the attribution of *existence* to substances and the members of the other categories is equally an imposition. *Answer*: No, for we find that *existence* applies directly to these things, and thus it is not a matter of imposition.

"Are marked through knowledge"—i.e., universals' existence can only be proved by appealing to our judgments, while in the case of other things, such as substances, we know them through their effect, etc., as well.

That universals are not effects is known through perception. We perceive universals along with the individuals instantiating them. Likewise inherence is not an effect, for how could inherence be produced either before, at the same time as, or after its *relata* ? There would be the oddity that a relation would lack a *relatum*, or else the relation would not relate its *relata* (in the case where they are produced together).

When the text says universals are not causes it means to mention inherence and noninherence causes. Universals *can* be instrumental causes—e.g., in the production of judgments.

Objection: How can universals lack *universalness*, since how otherwise can we explain our class-concept of universals ? *Answer*: That concept is due to an *upādhi* inhering in many individuals.

23. (E57-58; T52-53) *Objection*: Since farness and nearness are, according to you, the largeness and smallness of the size of a series of things in contact, you do not need *farness* and *nearness* as additional qualities. *Answer*: It is not only the comparative sizes, but also the direction from the original locus, that counts in estimating distance. If *a* is between *b* and *c*, then we may not be able to tell whether *b* or *c* is nearer. Both *b* and *c* must be in the same direction.

It might be thought that impetus (*vega*) is a series of motions, but this will not do, since we do not get the idea from slow movement. Then is it perhaps that the idea is based on quick appearances of moments of movement ? No, for in that case, as in e.g., the fire-wheel (*ālātacakra*), we have no idea of successive moments of motion but we do have the idea of impetus.

24. (E58; T54) Actually *ākāśa* is not the locus of all things, as the text says: what is intended is that it is the common locus of all composite things since it is the locus of all contacts.

25. (E58-62; T55-58) The term "elemental" is merely a conventional classification and is not based on a universal.

32. (E65; T60) The 5 qualities of place and time are: number, size, separateness, contact, and disjunction.

33. (E67-68; T61-62) The fluidity of earth and fire produced by instrumental causes occurs in the case of butter (an earthy substance) and gold (a fiery one). *Objection*: In the case of gold can't we say that its flammability is due to that of the particles of earth that are present in it? *Answer*: No, for that is precisely why we distinguish butter from gold; when butter is melted nothing eventually remains, while when gold is melted pure fire remains. *Objector*: But gold is after all earth, since it has weight, like a piece of stone. *Answer*: Gold itself has no weight; the weight of a piece of gold is due to the weight of the earthy particles present in it. *Objector*: All right then, gold is earthy because it can be lit up by an extraneous source of light, while fire is self-illuminating. *Answer*: Then perhaps the gold has unmanifested color (*anudbhūtarūpa*). This does not prove its earthiness.

34. (E68-69; T63-64) As opposed to those who say that a science has 3 stages—the statement of the subject matter (*uddeśa*), its definition (*lakṣaṇa*), and the consequent examination of it (*parīkṣā*)—Śrīdhara points out that this account of science fails to take account of the purpose (*prayojana*) of an inquiry.

36. (E75-80; T70-81) The question of the color of earthy things is raised. The color of a composite whole is produced by the colors of its component parts, and if all the components are blue, say, the composite is blue. But when the components are of various colors the resulting color is variegated-color. So that color must be counted among the varieties of color. *Objection*: Suppose we say that what is seen as of variegated-color is actually not the composite things but the collection of the parts (which in Vai eṣika is a different thing). Then we can dispense with variegated-color as a distinct variety. *Answer*: But we could say the same about composites whose components had the same color—that the color applies to the collection and not to the composite. And then composite things would have no color at all. *Objection*: Apparently you think that the composite whole has a single color called "variegated-color." But then, in a cloth which is colored on only one side you will be committed to holding that it is colored on the other side, and it is not. *Answer*: The components on the plain side have no color and therefore that side has no color.

One atom cannot produce effects, since it is eternal and if it were to produce at all would be continually producing. Furthermore, its products would be indestructible, since they would have no complex locus which could itself be destroyed to bring about the destruction of the product. Now a triad cannot produce either, since triads are visible and must be products of things which themselves are also products, just as jars are products of halves of jars which are in turn products of smaller components. Therefore we conclude that the ultimate causative elements are dyads. But it must take more than two dyads to produce something larger than a dyad, since two dyads would only produce something further of the size of a dyad on the rule that two infinitesimal things together are still infinitesimal but three are larger. Therefore the smallest visible substance is the *truṭi*, which consists of three dyads.

There is an extensive discussion of the processes of conception and birth.

37. (E90-96; T82-87) *Objection*: Your definitions are intended to differentiate a kind of thing from every other. But this purpose is impossible to attain on your own assumptions. For the difference between two things is the same as the mutual absence of each from the other. Now in order to explain how two things are different, the explainer must have cognized the difference, and this means he must have cognized both of the two items being differentiated—say, in distinguishing a cow from a horse he must have cognized both cow and horse. Now we ask you: is this mutual absence between cow and horse cognized by means of one judgment embracing both, or by two judgments each embracing one of the two? If the former, then the cognizer cannot very well distinguish the two objects, since they coalesce in his judgment of them. If the latter, we have the fault of mutual dependence, for knowing the cow as distinct from the horse and vice versa would be the ground for knowing that the cow is different from the horse. *Answer*: No, for difference is not the same thing as mutual absence; rather, the distinguishing characteristics of a thing are part of its very nature, and judgments of it do not depend on anything else. *Opponent*: Then in that case we may as well dispense with the notion of mutual absence; it does no work. *Answer*: We need it to answer to the content of the negative judgment "a cow is not a horse."

38. (E101-09; T91-99) *Objection*: You say gold is fire. But if so, why does it have smell and taste, and a touch that is not hot, while fire, according to you, has no smell or taste and is hot? *Answer*: Due to the *adṛṣṭa* of the perceiver the hot touch of fire is

rendered unmanifested, and he smells and tastes the qualities of particles of earth that have gotten mixed with the fire. *Objector*: What is fire apart from its distinctive characteristics? In the case of gold, we shall not admit any substance which is unseen and untouched. *Answer*: Substances must be admitted to explain the individuation of qualities which are shared among disparate loci. *Objector*: This individuation may be explained by appealing to the impressions or traces we bring to our perceptions. *Answer*: Why should not we also then say there is only one color, and the difference of white, blue, etc. are due to the impressions or traces we bring to our perceptions? *Objector*: In order to explain why we see blue at a certain time and white at another we have to allow that these colors really exist. *Answer*: Just so with the substances underlying colors; we need to postulate their existence in order to explain the perception of them. Furthermore, we cannot admit qualities without substances, since then we could not explain how two senses can grasp the same object—how can we see and touch the same thing?

That there are gross (i.e., middle-sized) whole substances (*sthūla*) that are not just collections of qualities is proved by several arguments. *Objection*: You hold that a human body is one single individual. But this is contradicted by the facts. When one shakes his hand, his whole body does not shake, and one thing cannot have contradictory qualities of *shaking* and *nonshaking*. Or if it can then this would mean that there is separability (*yutasiddhi*) between the body and the hand. *Answer*: You do not understand "separability"; all it means is that two things can exist separately, not that one can move or have a certain quality without the other having it. Likewise, when something covers up part of a whole substance and we then touch the uncovered part we touch the whole object through touching its part. *Buddhist opponent*: How can a single whole be related to a diversity of parts? Only two possibilities are found: either it resides in them part by part, or the whole resides in each part. But both are impossible. *Answer*: There is nothing absurd in one thing having several relations with other things. And you yourself admit that one *vijñāna* is connected with several things—its content, the sense organ, the internal organ, etc. Everyone agrees that one thread can be in contact with several beads strung upon it. *Objector*: This fact of perception, upon which everyone agrees, can nevertheless be given up if there is reason to do so. *Answer*: The only reason for giving it up would be sense perception. Indeed there is no possibility of giving up a judgment arising from sense perception providing that it is efficacious (*arthakriyākāri*), true

(*saṃvādi*), and recognized by everyone, for the acceptability of everything else depends on such perceptions.

40. (E133-42; T118-28) Proofs of God's existence are of two sorts: from inference, and from scripture. The inferential reasoning is: The *mahābhūtas* are preceded by someone who knows about them, because they are effects, like a pot. *Objection*: This inference depends on pervasion of *being an effect* by *being preceded by one who knows* (*it*), and there is no pervasion between these, since there are counter examples. E.g., in the case of the seed and the sprout, the man who sows the seed does not know what is going to sprout until he sees it coming up. *Answer*: This does not show that there is no one who knows what is going to come up.

Objector: But the creator you have inferred cannot create the earth and the *mahābhūtas*, etc., for either He is embodied or not, and in either case the hypothesis fails. If God has a body, then He is limited by the limitations of His sense organs, etc., and could not have the requisite knowledge of supersensuous things in order to create the world. But if God did not have a body, He could not create anything: for we find that an agent proceeds in acting as follows. First, he determines what the situation is, and desires to perform the action and effects the result of the act. If any of these factors are missing, agency is impossible; but clearly several of them are going to be lacking in anything which lacks a body. Therefore the agency of a disembodied God is an impossibility. *Answer*: The necessary condition of *x*'s being an agent is only that he be able to operate the instruments necessary to produce the results of the action. We know that our own self, for example, satisfies this description insofar as it operates our body. *Opponent*: But the self got this particular body through its previous actions when embodied in other bodies. *Answer*: True, but it is the self which does the operating, not the body. *Opponent*: But the operating—the impelling of the body by desire and effort—is only found to occur when the self has a body, and so we conclude that the self is the body and impels itself. *Answer*: No, for the body cannot be both the doer of the action and the object of the doing—i.e., the impelling. What is important is that the agent be conscious—for only a conscious being can have desires and exert effort.

Why cannot the atoms create the world by themselves? Because creation requires conscious control and the selves cannot have such conscious control until they have sense organs and a body. *Opponent*: The selves may be held to have a natural, all-pervasive awareness. *Answer*: Then why when a self is born does

he not know everything? Why does he have to learn everything all over again? *Opponent*: Because the awareness ceases to function temporarily. *Śrīdhara*: Why? *Opponent*: Because there are no sense organs. *Śrīdhara*: Just so; that is just my point!

There is only one God, since more than one omniscient Being would be superfluous and several such might interfere with one another. Some say that God has desires and effort; others deny these qualities to Him, allowing Him only pure intelligence, which constitutes His creative power. God is neither bound nor free—neither description applies—since God has never been bound, He cannot be free.

41. (E146-47; T132-33) An objection is considered from someone who thinks that the auditory organ is capable of going out to grasp its objects (just as the visual organ is held to do by Naiyāyikas.) The objection is refuted by noting that sounds are louder when their origin is closer, and softer when farther. Furthermore, we can be in doubt about the direction from which sound comes.

44. (E165-93; T161-77) A lengthy Buddhist objection to the notion of the self is put forward, based on the Buddhist thesis of momentariness. The Buddhist holds that the mark of existence is efficiency (*arthakriyākāritva*), i.e., bringing about an effect, and this causal activity can only be gradual or immediate. Now the gradual succession of things—change, in short—is only possible, he argues, on the assumption of momentariness: for of two states one of which follows the other, either the first would have to disappear entirely when the second arises—in which case there would be no gradual change—or else he first must continue to exist alongside the second, in which case there is no gradual change either. Discussion follows, centering around the possibility that causes are continuous and the gradualness of change is a function of associated, auxiliary causal factors. This possibility is rejected by the Buddhist, whose position is that the collection of causal factors at a given moment produces the event which occurs at the next moment—this is all that can be discovered to occur in the causal process.

Śrīdhara's answer to this is that one cannot prove momentariness of things by merely pointing to their existence, for it is impossible to provide a *vipakṣa*—a case where the absence of existence occurs together with the absence of momentariness. For the Buddhist refuses to allow that *anything* is permanent. *Buddhist*: Nevertheless, we can surely formulate the hypothesis that everything is momentary without admitting the existence of nonmomentary things, just as we

can hypothesize that a post is not a ghost without admitting the existence of ghosts. *Śrīdhara*: No, to know that a post is not a ghost involves being able to perceive ghosts—otherwise we should not know what the judgment was about.

Even if one should admit that nonmomentary things do not exist this would not prove that momentary things do; for this inference one needs to state a positive reason so that pervasion can be judged present or wanting. We cannot straightforwardly conclude anything positive from pervasion of negative things.

Dharmottara is here quoted as arguing in this connection that, once having established the pervasion of existence by momentariness in one case we can then go on to use this pervasion as the basis of positive inference with respect to other cases. This is dismissed as begging the question.

Furthermore, says Śrīdhara, the definition of existents as efficient (*arthakriyākāri*) does not rule out continuants as existents, since the existence of something is its capacity to bring about effects in conjunction with appropriate additional causal factors. And this will explain the gradual appearance of the effect. Indeed, only on such an account can gradualness be explained, for if causality were not a function of a continuant, the seed of barley could bring about a sprout of rice, since the momentary causal factors for the production of the latter—seed, soil, moisture—are all present. Finally, since we directly perceive continuity in things the momentariness theory is precluded. *Opponent*: This perception of continuity in things is mistaken; it arises from distinct momentary events very similar to each other not being discriminated. *Answer*: You prove the momentariness of things by showing the erroneousness of the perception of continuity, but this erroneousness is only based in turn on the momentariness of things: your argument is circular. *Buddhist*: We can infer momentariness of everything from the fact that whatever is produced is destroyed. For if this is the case, since the destructibility of a thing is part of its very nature, not dependent on any extraneous features, there is nothing to stop it being destroyed immediately—and so it is, lasting but for a moment. *Answer*: What could be meant by "*its* being destroyed" if it did not last for more than a moment? And if all you mean is that every "jarish" moment is immediately followed by a different moment, then why could the succeeding moment not be "jarish" as well?

Śrīdhara here argues for a conception of an absence as perceptible, and as not inhering in anything, as dependent upon its counterpositive, and locatable in space by reference to the locus of its

counterpositive. It is not clear from what he says whether he views absence as a seventh category or not.

(E193-99; T177-83) All Buddhist arguments in favor of momentariness commit the fallacy called *kālātyayāpadiṣṭa*, since we have the experience of recognition (*pratyabhijñā*). *Opponent*: Perception is one thing and memory is another; they must have different objects, since the former apprehends present events and the latter past events. Hence there is no single experience of recognition. *Answer*: Since we have such an experience we are bound to find a cause for it, and this cause is the combination of a sense perception with a trace, the result being what we call "recognition." And this common experience of recognition overrides all the Buddhists' inferences, since inference depends upon and bows to perception.

Buddhist: As a matter of fact we have direct experience of the momentariness of things. For a sense perception itself is momentary, and so is its object. *Answer*: Since you admit that we cannot know our knowledge it follows that we cannot know that our perceptual knowledge is momentary. Furthermore, the fact that the object is revealed by sense perception only at a moment does not show that the object is momentary, since it only shows us a momentary slice of the object. (Śrīdhara says he has explained this already in two lost works, the *Tattvaprabodha* and *Tattvasaṃvādini*).

Śrīdhara also argues that the birth of a child is inexplicable on Buddhist assumptions.

(E210-13; T192-95) *Objection to the thesis of the plurality of selves*: Just as there is only one *ākāśa* but many sounds because of diversity in its limitations by the several auditory organs, so there is only one self but a variety of experiences. *Answer*: The cases are not parallel: indeed, the variety of sound experiences depends on the variety of embodiments which is in turn dependent upon the *karma* of the self inhabiting the bodies, so that we must postulate an ultimate variety of *karmas* for the various selves in order to explain the diversity of sounds. *Advaitin*: True, there is a variety of *jīvātmans*, but only one *paramātman* or Highest Self. *Answer*: This cannot be good Advaita, since it would mean that there is a plurality of selves, and because the *jīvātmans* would be nonidentical with the supreme Self. *Adavaitin*: The difference between the supreme and the individual selves is due to *avidyā*, which has beginningless differentiations. *Answer*: Whose is this *avidyā*? Not Brahman's, for then Brahman would not be pure intelligence. Not the selves' either, for then there would be mutual dependence. *Objector*: No, it is like the seed and the sprout, beginningless differentiations.

Answer: No, for there are several seeds and several sprouts, but only one self throughout its various states: thus the *avidyā* of a self depends on that self, while that self's individuation depends on its *avidyā*, which is circular. Furthermore, if there were only one self then when one is liberated the world process would cease, which is absurd.

45. (E218-21; T201-04) With respect to the second argument for the internal organ, from the experience of pleasure and pain, an objector asserts that pleasure and pain are not objects of sense perception and thus are just forms of cognition itself and not apprehended by the internal organ. *Answer*: If they were just forms of cognition what would explain the difference between pleasure and pain? This difference arises from a difference in the objects of knowledge, and so the cognition of pleasure arises from a previous cognition of an object which is found pleasurable. Furthermore, cognition is not self-cognizable (*svasaṃvedana*). *Objector*: Yes it is; just as the lamp lights itself, so a judgment illuminates itself. *Answer*: No, for the lamp is cognized through a person's sense organs. Generally, judging is an action of one who judges, and thus one cannot identify the agent with its action or with the result of its action, the knower with knowing or what is known. *Objector*: Just as a jar depends for its appearance on the lamp, so colors, etc., depend for their appearance on a judgment. *Answer*: If you mean that a judgment is merely the appearance of the object, then to say that colors, etc., depend upon a judgment is *asiddha*—unproved, since the cognition in turn depends on the object, and also *anaikāntika*—inconclusive, since the cognition also depends on the sense organs. On the other hand, if you mean that the appearance of the objects comes about as a *result* of a judgment, then you will be unable to give an example to corroborate this view, for all the lamp does is to produce our judgments about the objects it illuminates, so that in this case the appearance of the jar depends, not on the lamp, but on our judgment produced by the lamp. When we see something what is produced is not an object or the appearance of an object, but rather a judgment *concerning* the object. *Objector*: So in your view the production of one thing—a judgment—constitutes the cognition of another—the object. That is very odd! *Answer*: Nevertheless, that is how it is!

Others say a judgment illuminates all three things—the object, itself, and its owner, the self or knower, just as a lamp illuminates the things around it, itself, and its wick. But this is not right, for the judgment comes in the form "this is a jar," and there is no mention of a knower or of the judgment itself. *Objector*: But we

sometimes say "I know the jar." *Answer*: Yes, and here the difference is that there is internal-organ perception (*mānasapratyakṣa*) of the object as qualified by its relation to a judgment and a knower; surely the judgment and the knower are not grasped by external sense perception, else we could see them with our eyes.

56. (E232-33; T213-14) Discussion of knownness (*jñātatā*). Some people hold that judgments are inferred rather than being directly perceptible to the internal organ, but this is incorrect, since there is no *hetu* to serve in the inference (the inference being "this object is known, because like...."). The *hetu* cannot be just "because it is an object," as objects are both known and not known. *Objector*: The *hetu* can be "because it has knownness." Knownness is a property produced in the object in virtue of its relation to the judgment someone makes about it. *Answer*: No, we find no such property. When rice is cooked we perceive a difference in the rice, but we find no such difference in an object before and after it has been known. Furthermore, in order to know *knownness* we would have to postulate an additional knownness of knownness produced in the knownness by virtue of its being known, and so on *ad infinitum*.

75. (E247-48; T224-25) Why do not we, instead of saying that contact, etc., occur in part of their locus, just say that a thing is in contact with a part of the substance in question? E.g., if a man is in a tree, he is in contact with the branch, not the tree.

80. (E252-54; T229-30) According to Śrīdhara the destruction of a substance and its color are not simultaneous; since the cause of the destruction of a color is just the destruction of the substance in which the color inheres, there must, he avers, be a very small time-lag between the destruction of the substance and the color. If someone says that the substance and its color are identical—i.e., that a substance is a colored thing—then he must explain how atoms produce colors in the things they combine to form—dyads, say. Śrīdhara thinks that a color cannot be produced in a dyad until the dyad has come into existence, and that this shows that substances are not intrinsically colored but only adventitiously so. Or if the opponent says that the color of one atom produces colors in subsequent atoms but not in dyads and larger objects, then Śrīdhara points out that nothing perceptible would ever be seen to be colored—the world would be colorless.

85. (E268-70; T246-48) *Yogācāra*: There are no numbers, since all we perceive are colors, etc. The ideas of number—one, two, etc. objects—are merely the results of the fruition of *vāsanās* or traces in the abode-consciousness (*ālayavijñāna*), since there are

no external objects to which they correspond. *Answer*: If our ideas of the number of things did not depend on external objects there would be no reason for us to make a given numerical judgment about a collection of things. And the ideas of number are therefore no worse off than the ideas of colors, etc., in the Yogācāra's view, despite his claims.

(E276-313; T265-84) A lengthy section deals with the Buddhist who denies that there is any such thing as twoness, since there is no proof for it or any other external object. If one appeals to our idea of "two" as the proof, then the Buddhist argues that this idea is past and so cannot prove what is present, and that generally external objects lack the conditions necessary to being perceived. His idea is that what is cognized should be the thing which satisfies the conditions of cognizability, and not the cognition, which is something else. Therefore, since it is judgments, and not objects, which satisfy the conditions of cognizability, there are no objects.

Śrīdhara questions the general principle assumed by the Buddhist, that if something lacks the conditions necessary for cognizing it, it therefore must be held not to exist. For example, this would preclude our saying that objects too far away to perceive exist. The Buddhist is made to qualify his principle: he now says that if a thing is perceptible but not perceived then it does not exist. Śrīdhara assents to this, but asks the Buddhist how he discovers that something is perceptible when by the Buddhist's hypothesis it has never been perceived (always being in the past). Indeed, what conditions do ideas satisfy that make them existent? The Buddhist answers that ideas can be accepted or rejected after one has become aware of them, and that that is the mark of their existence. Śrīdhara retorts that objects too can be accepted or rejected, so they can exist also.

The Buddhist presents another argument for idealism, as follows: An external object, lacking consciousness, cannot illuminate itself, but requires a conscious illuminator to know it. Now an unilluminated object is no different from a nonobject, since it is unillumined; therefore it is expendable. Further, suppose we admit external objects as contents of judgments; then we should be forced to note that these objects never appear except when a judgment does, and thus there is no difference between the object and the knowledge of it. Śrīdhara's answer to this is that, first, the assumption that what is nonconscious cannot figure in illumination is indefensible; second, that the invariable concomitance between an object and its cognition does not necessarily prove that they are not

different; and third, that in any case the assumption that knowing and what is known are identical is mistaken, since the object appears as external while the knowing appears as internal. The Buddhist replies that this appearance of externality must be mistaken, since what is illuminated is not found to depend on anything else for its illumination—e.g., a lamp, which illuminates itself and needs nothing else to illuminate it. Śrīdhara's reply is that the metaphor is getting mixed: true, a lamp does not need another *light* to illuminate it, but it does need an eye and a knower to be apprehended, i.e., "illuminated" in that sense.

Śrīdhara now wants the Buddhist to tell him what corresponds to "this" in the judgment "this is blue." The answer is given that the subject of the judgment is the judgment itself, and that by a mistake the form of the judgment is cognized as something different from the judgment. Asked how he knows this, the Buddhist answers that he infers it from the fact that there is only one real thing involved, namely the judgment, and Śrīdhara replies that such an inference must depend on prior perceptions of a sort the Buddhist rejects as impossible. Anyway, granting for the sake of argument that consciousness is mistakenly polarized into subject and object (or predicate), the next question is: why does this happen at particular places and times and not just all the time everywhere? The Buddhist's answer is that the peculiarities of the *vāsanās*—traces—account for it, and that these peculiarities are due to the beginningless causes. Śrīdhara now wants to know about these causes—are they external or are they of the nature of consciousness too? If they are external, then the Buddhist has admitted external objects. If they are not, if they are just consciousness, then Śrīdhara submits that since consciousness cannot individuate itself the diversity in the *vāsanās* remains unexplained.

86. (E315-16; T287-89) An objection is introduced against the whole procedure of basing assertions in ontology on the fact that we talk in a certain way—e.g., of postulating a quality of "size" just because we make judgments about the sizes of things. The objection is that just from a fact of speech we cannot infer the existence of an object, for words are not born of objects but rather from the vocal chords. Śrīdhara replies by pointing out that the desire to speak a word is certainly one of the factors in the production of the word, and that this desire is preceded by perception of the object which it is desired to speak of. Otherwise communication would break down. There is a discussion of lying—analyzed as trying to speak of something one has never perceived—concluding

that at least the liar must have some recollection of whatever it is he is trying to speak about.

88. (E339-43; T308-12) Śrīdhara introduces in this section a discussion of the arguments put forward in the ninth *kārikā* of Īśvarakṛṣṇa's *Sāṃkhyakārikās* in favor of *satkāryavāda*, the view that the effect preexists in its cause. He finds in that stanza 3 arguments. (1) A nonexistent thing cannot be produced; thus whatever is produced must already exist. (2) There is regularity of relationship between effect and cause, and unless the effect is already there to determine the particular nature of the cause everything and anything would be always being produced. (3) Since effects are found to be of the same nature as their causes, and since the whole is nothing but the sum of its parts, it follows that if the cause is an entity the effect must be one too.

(E343-47; T312-16) Next Śrīdhara turns to consider causal efficacy (*śakti*). Someone may say that there must be supersensible causal efficacies in things, for otherwise how can one explain how causes fail to function in the presence of counteracting agents. E.g., the same causal factors which produce fire on other occasions fail to do so when a charm is repeated, but they do operate when the charm is not repeated. Śrīdhara's reply is that it is the prior nonexistence of charms, etc., which helps produce fire and whose absence precludes it. *Objection*: But if a countercharm is spoken, fire will result even in the presence of the charm, and thus an absence should not be accounted a causal factor, and we are led to postulate a causal efficacy. *Answer*: Then we must complicate the account of the causal factors of fire to accommodate the facts mentioned. Nevertheless we should always refuse to introduce supersensible entities as explanations as long as we can explain by reference to visible ones.

Śrīdhara adds that plurality of causes is the secret of the Nyāya theory, but that he has explained the secret of the Mīmāṃsā theory in the (lost) *Tattvaprabodha*.

89. (E374-77; T339-43) In the course of an objection about the kind of disjunction classified as (3b)—disjunction produced by disjunction of cause and noncause—an interesting case of conflict between perception and inference arises which Śrīdhara decides in favor of inference. The situation under discussion occurs when one's hand moves away from a wall. The question raised is whether the hand moves away from the wall because the body to which the hand belongs moves, or not. Śrīdhara holds that since the motion of a body depends upon the motion of its parts, the disjunction of the body from the wall depends on the disjunction of the hand from

the wall; but since the body does not move at the time the hand is moved away, some other causal explanation must be inferred to explain the hand's movement, and this is why disjunction of type (3b) is invoked. An objector, however, retorts that it is plain perceptual fact that the hand and the body of which it is a part are disjoined from the wall at the same time. Śrīdhara says that it cannot be so, since at the moment the hand moves there is no cause for the body's disjunction. The opponent argues that perception should override inference. Śrīdhara cites a case where we ought to reject perception in favor of inference: when we see the petals of a lotus pierced at one stroke, we see them all pierced simultaneously but infer that there were very small time-lags between each piercing. The opponent finds this a doubtful case, but thinks the case of the hand and the wall under discussion is a clear case. He challenges Śrīdhara to explain in general when we should favor inference over perception. Śrīdhara points out that actually we do not ever really favor inference over perception, but rather we favor the perception on which the inference is based over another perception which appears to contradict it. What happens then? We set aside the less-favored perception as "sublated" (*bādha*), just as we set aside the perception of silver in favor of that of shell in the stock case of error. *Opponent*: But it cannot be denied that the perception of silver took place, so that cannot be set aside. *Śrīdhara*: True; what is set aside is the notion that silver exists in the object on the beach, so the judgment that the shell was silver was false. *Opponent*: The existence of silver cannot be denied either, since it is only on the assumption that the object exists that we can explain the knower's resulting activity. *Answer*: No; judgments do not always result in the knower's overt activity; sometimes he does nothing.

Śrīdhara says this last point is explained in detail in the *Saṃgrahaṭīkā*.

93. (E415-18; T366-69) *Objection*: There is an additional kind of imperfect knowledge, namely *tarka*. *Tarka* occurs when there are two opposing, equally evidenced opinions; settlement of the argument may then be reached by the use of hypothetical arguments of the sort "if your view were correct, then... ," where the result is some absurdity or contradiction of something the opponent wishes to hold. Now this is not perfect knowledge; it only clears the way for an inference leading to the truth; nevertheless it must be found a place, for it is a very important part of any inquiry. Thus it must be a fifth kind of imperfect knowledge. *Answer*: What

kind of a judgment does *tarka* involve—the denial of the opponent's view, or the assertion of one's own? If it involves the denial of the opponent's view, then this is surely a correct judgment and *tarka* should be classified as perfect knowledge. On the other hand, if it is the assertion of one's own view, it must depend on an inference from the denial of the opponent's view, and is therefore to be classified as inference. *Objector*: This would be all right, except that there is no definite cognition—merely the assertion of the likelihood of one's own view being the correct one—and yet on the other hand it is not a case of doubt either; therefore it is halfway between and must be independently classified. Śrīdhara appears willing to classify *tarka* as doubt, but also argues for considering it as exhausted by its twin characteristics of perfect knowledge and inference as analyzed above.

95. (E426; T377-78) Śrīdhara refers to his view of error as *viparītakhyāti*. He admits that misconception can arise even in the absence of any actual substratum, and says that even here something not existing is cognized as existing. He distinguishes his view from *asatkhyāti*; on his view one can make this kind of mistake only with regard to something which is capable of existing. In illusions, when there is an objective substratum, the similarity of things together with defects in the organs causes error; in hallucinations—e.g., when an infatuated man sees his beloved everywhere—there is no possibility of similarity and the cause is only derangement.

(E430-34; T380-83) Some say there is no such thing as misconception since the sense organs by their very nature bring about correct knowledge. In erroneous cognition what happens is that 2 correct cognitions are confused due to the defect in the organ. Thus we have (1) the idea of *this* with regard to a piece of shell, and (2) the memory of *silver* awakened by the similarity between shell and silver. Both are in themselves correct, but when *silver* is attributed to *this*, error results.

Answer: If it were so we should not be moved to pick up the shell since all that would happen is that we would see a thing and remember silver. *Opponent*: Well, we fail to discriminate between the memory and the perception of *this*. *Answer*: No, for we never experience any such failure to discriminate memories from perceptions. And if you refuse to locate the object of the judgment of silver in the object, you will never be able to explain the sublating judgment "this is not silver." *Opponent*: This last judgment comes about as a result of our discriminating the two component judgments. *Answer*: That is to say, we no longer perceive shell as identical with

silver, an identification you were a moment ago denying ever takes place.

In any case, Śrīdhara wants to know, how does the opponent handle a different kind of misconception, when we appear to see two moons? *Opponent*: In this case rays go out from each eye and as a result we get two cognitions of the one moon, which we mistake for a single cognition of two moons. *Answer*: Impossible. We never see the properties of our judgments with our eyes. Or if you will admit that the duality of the judgments is seen in the object, then you have capitulated to our own point of view by admitting that simple judgments can be erroneous.

Still others hold that in error an extraoridnary (*alaukika*) piece of silver is produced, and that therefore there is never any error in simple judgments since they always have an object, either ordinary or extraordinary. But this view is incorrect, for it fails to explain how erroneous judgments lead us to activity, for we are never moved to act to acquire objects we know to be extraordinary, i.e., not physical objects.

97. (E441-42; T390) Praśastapāda's reference to "dream-end cognition" is explained. This kind of cognition is the judgment we make that we have been dreaming of such-and-such; since we have not yet opened our eyes and the senses are not yet operative, this kind of judgment might seem to fall into the definition of "dream," but it is actually a case of memory, as Pra astapāda explains.

99. (E444-46); T395-96) The "fourfold contact" mentioned by Praśastapāda in his account of the perception of substances is explained as follows. There must be contact between (1) self and internal organ; (2) internal organ and sense organ; (3) sense organ and object. Thus there is contact among the four things mentioned.

Objection: If universals are perceptible, then individuators ought to be also, since they can satisfy the conditions mentioned. And it would then follow that doubt and misconception would be impossible. *Answer*: No, for they are related differently to perception. A universal is perceived merely through the contact of its own locus and the visual organ, while an individuator, because it is so small, depends on the contact between the parts of its locus and the parts of the eye. Therefore it is not absolutely necessary that the perception of a universal in a thing be also accompanied by the perception of the things' individuator. This also explains

why we only indistinctly see objects far away—we fail to perceive their individuators.

(E446-59; T396-408) Some people say that only propositional (*savikalpaka*) judgments constitute perception since it is only objects of propositional judgments which can be used in human activity. To this Praśastapāda is answering when he says that this first kind of perception is of the thing's own nature. We must admit this nonpropositional (*nirvikalpaka*) perception, says Śrīdhara, because without a nonpropositional perception of a thing we can have no propositional judgment about the thing, since we could not remember the word which denotes the thing. Furthermore, nonpropositional perception grasps both universal and individuating features of things, not merely the pure particular (*svalakṣaṇa*), since we can reidentify its objects. True, we do not grasp universals or individuators in the things as distinct entities, but that is because we have at this stage nothing to compare or contrast the object with. Thus in nonpropositional perception the relation between the universal, the individuator, and the individual thing are not cognized, since they have not yet been discriminated and only that which is cognized as separate can be cognized anew as connected.

Buddhist: Only nonpropositional perception can be a true judgment, since its content accurately reflects the nature of the object cognized, while propositional perception, depending in part on traces, etc., deviates from its object. *Answer*: No, propositional perception also can be a true judgment, as Praśastapāda indicates. *Buddhist*: The appearance perceived is not born of the object, but of traces, etc., and thus all *vikalpa* or conceptual construction is false. *Answer*: No, since our actions verify such perceptions. *Buddhist*: The conceptual construction is born of experience (*anubhava*) and imposes (*āropa*) its appearance on the pure particular, hiding the difference between the pure particular and its appearance; it is this appearance which makes us act toward the place occupied by the pure particular. Because of the connection, through reflection, of the character of the appearance with that of the pure particular—just as the light reflected from a gem hides but directs us toward the gem—so the appearance leads us toward the object. *Answer*: If the construction did not apply to the object how could it impose its appearance? In order that it apply in the appropriate cases you must admit that the determinacy provides the correct way of grasping the object, as is shown by the fact of success in resultant action. *Buddhist*: No, since everything is momentary, and since the time when the appearance is perceived is different from that

when the propositional perception takes place the latter cannot grasp the object of the former; the object and its appearance can only be similar to each other, but this similarity must be with regard to that which is contrary to both the appearance and the object. Then since the second, propositional perception is only cognizing what the first, nonpropositional one has already grasped, namely this negative similarity of their objects, the second cannot be called correct knowledge. (Inference, on the other hand, can be correct knowledge since it grasps a pure particular not already cognized by some previous perception).

Answer: No, for we cognize something positive and not negative, and anyway a negative thing could not lead us to act toward an object. Further, if the earlier moment is now gone, and it was the time of the appearance to the senses of the object, how can you say that the same object is known through propositional perception, even if that object is called by you a "negative similarity"? *Buddhist*: The propositional perception always involves memory of the meaning of the word denoting the object, and is therefore produced by memory and not by the sense organ and the object; it is therefore not valid knowledge. *Answer*: True, this memory is one of the causal factors contributing toward the production of propositional perception, but this does not invalidate it. *Buddhist*: Yes it does, since right perception must be free from conceptual construction (*kalpanā*).

The nature of conceptual construction is discussed. The Buddhist says there are 2 varieties: (1) the kind involving connection of an object with a word, (2) the kind involving connection of one object with another. *Śrīdhara*: As for (1), does a judgment vitiated by such conceptual construction connect the word with the object? or does it become connected to the object by means of the word? Several interpretations of each horn of the dilemma are examined: none of them will do. The Buddhist expands on his theory: Words denote persisting kinds of things, and the true object, the pure particular, is neither persisting nor a kind. Furthermore the appearance of externality of the object is conceptual construction. Śrīdhara in reply appears to admit that if the Buddhist were right and universals did not exist his argument would be worth something, but that because universals exist the Buddhist is wrong.

As for (2), the Buddhist argues that propositional perception cannot have real things for its object, since in such perception there is deliberation and discrimination of properties, substances and relations—in short, it is not a direct response to the given but

involves several steps of interpretation. Śrīdhara is unconvinced. It is not the judgment which involves deliberation, he avers, but the knowing self; furthermore, what the knower does is to discover the qualifications present all the time in the object—in nonpropositional perception these are not recognized since the necessary additional factors for appreciating the character of the object presented are not present yet. But since propositional judgments as well as nonpropositional ones are produced by contact of the object with the sense organ, one has as much right as the other to being called "perception."

(E459-62; T408-10) *Objection*: Motions are not perceptible, since when a thing moves all we perceive is a series of contacts and disjunctions, from which we infer that the thing is moving. *Answer*: No, since of two things which become disjoined only one may move, but if all we see is disjunction we should infer motion in both things. E.g., when a monkey moves up and down a tree, we perceive that the monkey is moving in addition to the contacts and disjunctions of the monkey with its parts. Otherwise we would infer the motion of the tree equally as well as that of the monkey.

(E464-70; T411-16) Śrīdhara further distinguishes the two kinds of yogis Praśastapāda mentions. The "ecstatic" ones are those who are nonattached; the "nonecstatic" are those who have desire for knowledge. The perception of the former kind of yogi does not produce merit, since there is no attachment, and it does not refer to external objects, being a transformation (*pariṇāma*) of the self alone. The latter, nonecstatic yogic perception involves desire, produces merit, and illuminates external objects.

Śrīdhara says that yogis get their knowledge of other selves through their internal organ, which shoots out impelled by the force of their great merit and contacts the other selves and in turn reports back.

Opponent: Yogis cannot perceive supersensuous things, because they are living beings like ourselves. *Answer*: This inference fails because the opponent does not believe in yogis and so cannot properly form an inference about them. If he does believe in yogis, then his argument undermines the very evidence by which we can prove their existence, namely their supersensuous perceptions. *Opponent*: Your argument is a kind of *tarka*, intended to show an undesirable implication of my view. But this kind of argument fails if the undesirable implication is something of a sort not even admitted by me—and the implication in this case, that the evidence for the existence of yogis would be undermined, fails against me since I do not believe

in supersensuous perceptions or yogis! *Answer*: Nevertheless you cannot put forward your original inference, since it is inference for another (*parārthānumāna*) and any inference for others depends on a previous cognition by the person offering the inference. If you were allowed this inference, it would be equally allowable for someone to argue "the sky-lotus is sweet-smelling, because it is a lotus, like the lotus in the pond"!

(E471-74; T417-19) Śrīdhara clarifies Praśastapāda's account of the relation between an instrument of knowledge and its result. The instrument grasps universals and individuators in their own form, free from any conceptual construction; once this has taken place it is certain that the resulting propositional perception will take the form determined by the natures of the universals and individuators. So the resulting judgment (*pramiti*) is a qualified judgment about a substance, or rather a judgment about a substance as qualified by universals and individuators. But since perception can grasp individuators and universals by themselves, there must be an instrument for that perception also, and the instrument there is what Praśastapāda calls "*svarūpālocana*," which Śrīdhara says merely means the sense-object contact itself. When the result is practical activity toward or away from an object, the instrument is the propositional judgment about the qualified object.

102. (E482-87; T425-29) An objector points out that according to the third part of Praśastapāda's definition of a valid *hetu* the fallacious *hetus* known as *prakaraṇasama* and *kālātyayāpadiṣṭa* would have to be counted as valid. For Praśastapāda says that a valid *hetu* must be validly known to be absent from the whole of the *vipakṣa*, and a *prakaraṇasama hetu* is not validly known not to be absent from the whole of the *vipakṣa*, since it is present in both *sp* and *vp* and is therefore doubtful. Likewise the *kālātyayāpadiṣṭa hetu*, which is known to co-occur with the *vp*. Śrīdhara begins his reply to this objection by citing an answer which he rejects; this answer proceeds by classifying the two types of fallacious reasons in question as kinds of *anaikāntika* fallacy, and rejecting such *hetus* as productive of doubt. Śrīdhara says this does not answer the objection, which after all calls into doubt the definition of a valid *hetu*. Śrīdhara's own solution to the problem is to reject inferences of the sort in question (e.g., "sound is eternal, because we do not perceive any noneternality in it" as opposed to "sound is noneternal because we do not perceive any eternality in it") on the ground that the *sādhya* or *pakṣa* is improper. Any *sādhya* (or *pakṣa*) which is capable of having two contradictory properties is an improper one, he says.

Another objection is proposed. The objector points out that only-positive (*kevalānvayī*) inferences, where no *vp* is possible, violate the defintion and thus it is too narrow. Śrīdhara replies that the third part of Praśastapāda's definition does not require that there be a *vp* but rather that there be *absence of failure of* concomitant relation between *s* and *h*.

104. (E492-500; T434-38) Challenged to explain invariable concomitance (*avinābhāva*) Śrīdhara glosses it as "nonwandering" (*avyabhicāra*). He first explains the Buddhist analysis of this in order to refute that analysis. The Buddhist says that nonwandering or invariable concomitance arises from 2 sources: (1) identity (*tādātmya*) and (2) causal origination (*utpatti*). He explains the latter first: it is the relation of cause and effect when properly checked against experience according to 5 tests. As for "identity," it corresponds to the relation of the defining characteristics of a thing with that thing. We come to know this relationship by realizing that its sublator is present in the *vp*. Śrīdhara's criticism of this account is that the presence of these characteristics of identity and origination themselves depend on the invariable concomitance —so concomitance must be explained in some different fashion. He illustrates this by providing examples of things which are related as cause and effect, and as defining characteristic and thing defined thereby, but which fail to display invariable concomitance. E.g., certain properties of smoke, such as its *earthiness*, are not concomitant with fire, although smoke is the effect of fire; and an individual tree, say a *śiṃśapā* tree, although possessing the defining characteristic of *treeness*, is not invariably concomitant with it, since we may fail to remember that the object is a tree and merely know it as a *śiṃśapā*.

The Buddhist objects to this last claim. He says that in fact since the object we see, the *śiṃśapā*, and the tree all have the same defining characteristic, namely *treeness*, we do perceive that characteristic as well as *śiṃśapāness*. The reason we may not mention the *treeness* in our description of the object is because we fail to remember the word "tree" but do remember the word "*śiṃśapā*," and the reason for this is that we have the idea of the exclusion (*vyāvṛtti*) of non-*śiṃśapā* rather than that of the exclusion of non-tree. Now when we realize the invariable concomitance between *śiṃśapāness* and *treeness*, what we actually realize is that the two exclusions have the same nature. Śrīdhara answers that there could be no basis for this realization except mere assumption, since the bases for such realization are made out to depend upon the realization and not vice versa.

(E500-02; T439-42) Summing up, Śrīdhara notes that the Buddhist attempt to make invariable concomitance depends on causal relations or on nominalistically understood defining characteristics will not do, since the relation of invariable concomitance is precisely that relation which is not vitiated by *upādhis*—it is a natural as opposed to an adventitious relationship. Empirical relations such as the Buddhist appeals to will never yield the strong connection required. Furthermore, this strong relation must hold between universals primarily, although they hold between individuals characterized by the universals in virtue of their being characterized by those universals.

105. (E513-T22; T449-58) *Objection*: Verbal authority cannot be included under inference. In inference what is inferred is an *object* qualified by a *property*. In the inference of a word's denotation from the hearing of the word, what could correspond to the *object*? Not the denotation itself, since it is not known at the time, and inference depends on invariable concomitance between the property and the *hetu*. Indeed, the only relation between a word and its denotation comes *after* the meaning of the word has been established, and therefore prior to establishment of this relationship no inference is possible. Secondly, since in different parts of the world the same sound means a variety of things, there is no invariable concomitance between a word and its meaning. The difference between verbal authority and inference is simply this: that in the former there must be a trustworthy source, whereas in the latter this is not required.

Answer: The concomitance is between a certain activity (in this case verbal) on the part of the speaker and his intention to communicate something. Once this has been performed by a trustworthy person, we can ever after infer that the word has that meaning by recalling the concomitance. As for the second objection, this is answered in the same way, by noting that the intention of the speaker is all-important. There is no natural meaning relation between words and their objects; meaning is conventional in origin. Even the words in the Vedas get their meanings through the intention of the person who composed them. Since this person is a superior being his authority is trustworthy, and we know that the Vedas are his work because they are generally accepted as authoritative and give rise to veridical knowledge. Śrīdhara here gives several arguments for the noneternality of the Vedas.

(E522-26; T458-65) Śrīdhara points out that the Vaiśeṣika view creates the following difficulty: that with respect to the gaining of such ends of man as liberation and heaven, about which we can

only know by verbal authority, we are not likely to apply ourselves to such an end on the basis of testimony until we are convinced that the author of such testimony is completely trustworthy. It is to meet this difficulty that the Mīmāṃsakas argue that the Vedas are self-sufficient and that it is not necessary to ascertain the good qualities of their author, since they have no author. But this will not do, since it is impossible to find a suitable meaning for "self-sufficiency" in the case of Vedic text. Does its authoritative character (*prāmāṇya*) consist in its needing nothing else by which it can be known ? Or is it that it needs nothing else by which it is produced ? Or is it that it operates by itself without any help ?

If the Vedas needed no other awareness to apprehend their validity, then there could be no doubt or mistake about their meaning, and no mistaken activities following on the hearing of them. But such doubts and mistakes occur. Therefore the validity of the Vedas must be known by a judgment external to them. *Objection:* This will lead to infinite regress. *Answer*: No, since it is not always necessary to be convinced of the authoritative character of an instrument of knowledge. An instrument points to its object by itself; we do not need first to ascertain its authoritative character to know what perceptual and inferential judgments are about. It is only when a doubt arises about the trustworthiness of an instrument that such ascertainment is appropriate. Śrīdhara quotes Maṇḍana Miśra's *Brahmasiddhi* in support of this. *Objection*: You seem to be saying that the question of trustworthiness only arises when one has not verified a judgment. Then is it your view that the authoritative character of a judgment is known from the resulting verificatory activity ? *Answer*: Not quite. The truth of a particular judgment is shown through verification, and the trustworthiness of the instrument involved is shown in dependence on that.

That is why the Vedas' authoritative character does not consist in its needing nothing else by which it is produced: valid knowledge of an object is also required. *Objector*: What we mean to say is that the authority of the Vedas does not require any additional cause besides the causes which give rise to the utterances being produced. *Answer*: Then there could be no mistaken judgments about the Vedas. *Objector*: That is true; in themselves these causes cannot bring about false judgments; it is only because of defects in the causal factors that error arises. *Śrīdhara*: Where do these defects come from ? And how are they to be avoided ? There is a necessary reference to external factors responsible for the production and removal of defects. For that matter the same may be said of all

the instruments of knowledge: any kind of judgment may be in error due to defects in its causes and the trustworthiness of any of the instruments as applied to a particular case necessitates the absence of such defects.

108. (E534-42; T472-77) There are 2 kinds of presumption: (1) *dṛṣṭārthāpatti*, based on inconsistency between visual appearances, and (2) *śrutārthāpatti*, based on inconsistency between auditory appearances. As example of the former, the reasoning from one's perceptions that Caitra is alive and not in the house to the conclusion that he is outside. As example of the latter, "Devadatta, who is fat, does not eat in the daytime," when heard, leads one to conclude and utter the sentence "he eats at night."

Śrīdhara points out that in either case presumption is a variety of inference, since in the one case the reasoning depends on invariable concomitance between *being alive and not in the house* and *being outside the house*, whereas in the other there is concomitance between *being fat and not eating in the day* and *eating at night*.

Objection: But in the latter case it is sentences which are inconsistent and not the properties you mention. Presumption of this latter sort is a kind of verbal testimony, since the result of its operation is the uttering of a sentence, a result brought about by hearing the sentence "Devadatta, who is fat, does not eat in the day" and the instrument called presumption. Otherwise, if there were no verbal authority acting in the matter, we would not appreciate the connection between the above sentence and the conclusion "he eats at night."

Answer: But it is the relationship among the words in the sentences which allows the move from the one to the other. No single word by itself can express the meaning of a whole sentence. Therefore it is a matter of inference, not verbal testimony.

110. (E542-52; T478-86) The Vaiśeṣika view is that absences are objects of experience and that they participate in pervasion relations and thus reasoning about them is inferential. *Objection*: We cannot directly perceive absences, but only positive loci of absences. This is shown by the fact that we sometimes have knowledge of an absence even when our sense organs are not operating. E.g., if a man leaves Devadatta's house and goes down the street and there is asked whether Devadatta is at home, thinking of it for the first time he answers, "why no, he is not there." One might think that he had a nonpropositional perception of Devadatta's absence while he was in the house and remembered it later, but that would be to forget that in order to have any kind of perception, including

nonpropositional ones, one has to confront some kind of form, and in the case of an absence the only relevant thing that has a form is the absence's counterpositive, in this case Devadatta himself, who is by hypothesis not perceived. As the *Nyāyavārttika* says, the difference between a positive entity and an absence is that the latter is known only as the negation of something else, whereas the former is known without dependence on something else.

Answer: This man down the street reporting that Devadatta is not at home—does he judge that Devadatta is not at home now, or that he was not at home when he, the speaker, was in the house? Surely not the former: Devadatta may have come home in the meantime, and anyway the man is no longer in the house and cannot judge. So your idea is that the previous nonapprehension (*anupalabdhi*) produces the judgment of absence now. But how could it do that? Conditions have changed, and the nonapprehension is no longer present: again, it cannot be recalled, since according to the story this is the first time the speaker thought of the matter and so there is nothing to recall. No, when the speaker was in the house he perceived the mere form (*svarūpamātra*) of absence (without appreciating what its counterpositive was) and when prodded later about Devadatta he infers that the absence he saw in the house was Devadatta's absence. The inference depends on the pervasion relating *nonexistence of an object which would be remembered when one tries to and fails* with *failure to remember the object*.

Objection: But we sometimes just plain forget things that did exist—e.g., of two lines of a stanza, we may recall one and not the other. *Answer*: The cases are unlike. The words of a stanza are grasped by different judgments, since they are heard one after another.

(E552-58; T486-90) *Objection*: Since an absence has no cognizable nature the question of how we apprehend it cannot even arise. *Answer*: Then what is the source (*ālambana*) of the judgment "the thorn is not here (on the ground)"? If it is held not to have any (external) source, the Buddhists prevail. If the ground is taken to be the source, then even when the ground has thorns we should still find ourselves saying "thorns are not on the ground," since there would be no reason for us not to. *Objector*: It is the *bare* ground which is the source. *Answer*: Is bareness a necessary concomitant of the ground, or a quality of it? If a necessary concomitant, then the difficulty will remain that cognition of it may produce the negative judgment even when the thorns are there. If bareness is a distinct quality of it, then you are admitting absences as a distinct entity, as we do.

There are four kinds of absence: prior, posterior, mutual, and complete. Prior absences, e.g., the absence of the effect in its cause prior to its production, are beginningless but have an end, since they are destroyed by the appearance of their counterpositives. *Objection*: Then when the counterpositive in turn is destroyed we should perceive its prior absence once again! *Answer*: No, since the parts of the counterpositive also help destroy the prior absence, and when it is destroyed its parts still exist. Posterior absence is the loss of the nature (*svarūpa*) of an object when it is destroyed. It has a beginning but is endless. Mutual absence is the absence of one thing in something different from it and vice versa, e.g., the absence of cow in horse and vice versa. Complete absence is the absence of that which never exists at all.

112. (E560-64; T493-96) Śrīdhara's interpretation of Praśastapāda's intent is this: When *A* utters a sentence containing the 5 members of an argument, *B* hearing it knows that *A* intends him to understand something determined by the meanings of the various words in the sentence; *B*, indeed, knowing the individual meanings of each of the members infers therefrom the meaning of the whole sentence of which the argument consists. The meaning of the sentence is not cognized directly from the meanings of its components.

Question: Is it that each of the members' individual meanings is a causal factor in itself for the meaning of the whole (*abhihitānvayavāda*), or rather the meanings of the words in relation to each other (*anvitābhidhānavāda*)? Some say that it must be the latter, since words have meaning only in the context of actions (since we learn words in hearing such sentences from our parents as "bring the cow," "milk the cow," etc.). But this cannot be right, since in learning, say, "bring the cow" we should have to know the meaning of "bring" first in order to know what to make of "bring the cow" (supposing we do not yet understand "cow"), and thus at least one word must have a meaning independent of context; thus the theory of *anvitābhidhānavāda* is untenable, and the *abhihitānvayavāda* theory is correct.

113. (E566-74; T499-505) The definition of the hypothesis given by Praśastapāda is intended to meet a Buddhist objection. The Buddhist questions the necessity of stating the conclusion of the argument at the outset, since it can serve no function in deriving the conclusion. Praśastapāda's answer finds another function for the first member, namely to identify the locus of the *hetu*. (The source of this idea is traced to the *Nyāyabhāṣya*, which is quoted). *Buddhist*: Then again, to define the hypothesis as identifying the

pakṣa qualified by the *sādhya* will not do, since the *sādhya* is not yet established and will not be until the inference is completed. *Answer*: True, it is not yet established, but it is known to us because we recognize its presence in the *sapakṣa*. The hypothesis attributes the *sādhya* found in the *sapakṣa* to the *pakṣa* and in addition identifies the *pakṣa* as the locus for the *hetu* to be mentioned in the next member.

Examples of hypotheses which are not compatible with the facts are given. (1) "Fire is not hot" is contrary to perception. (2) "*Ākāśa* is dense" is contrary to inference, in the sense that the defining characteristics of *ākāśa* are incompatible with density (having no constituents, they cannot be densely packed). (3) "A Brahmin should drink wine" is contrary to scripture. (4) "This word has no meaning" is self-contradictory.

115. (E576-96; T512-22) Śrīdhara identifies the "some say" of (3) (pp. 296-297) as Kumārila and Uddyotakara: they are the ones who think that the presentation of two *hetus* to prove contradictory theses produces a case of "doubtful" *sādhya*. Supporting Praśastapāda's rejection of such a case as an instance of this fallacy, Śrīdhara says that in fact no such case could arise, since once one of the two reasons had been found to fulfil the conditions of a satisfactory inference, the other could not properly be proposed. To this the objector is made to say that it is not cases where the two *hetus* are actually proposed but cases where they could be proposed that produce doubt. Śrīdhara's answer to this is that if it were so we could have no faith in the conditions specified as sufficient for validity of an inference ! In fact what happens is rather that there is no definite proposition entertained in such a case, which is why Praśastapāda wants to call it a case of the *anadhyavasita* type. Furthermore, there cannot in any case be two *hetus* of equal weight for two contradictory theses.

119. (E621-23; T544-45) Śrīdhara here deals with people who say that only perception is an instrument of knowledge, and not inference. He shows (1) that such a person must needs be a solipsist of the present moment, since only by inference can we know that the perceptions of others are valid, or that past and future perceptions of our own are; (2) that no instruments at all are needed except to correct the ignorance of others, but that to know that another is ignorant we must have some other means than perception; (3) that to prove that inference is not a valid means of knowledge one will need to draw inferences.

121. (E627; T549-50) The reason memory is not counted as a valid instrument is that it always grasps objects which have been

known previously by some other means, and it is that other means which determines whether the judgment is valid or not. Kumārila is quoted with approval on this point.

129. (E640-41; T565-66) When an object falls, is it the object itself which has weight or is it the component parts? Śrīdhara answers that both do. Well, then, how is it that a composite object weighs no more than its parts do, since if you add the two weights the result should be greater than either of the component weights? *Answer*: Because the difference is very minute we do not feel the difference when measuring the respective weights, just as when we lift a large thing with some little things on it we do not feel the weight of the little things.

132. (E650-57; T574-81) In connection with the discussion of the second method of producing traces—by repetition of judgments—Śrīdhara brings in a discussion of meaning. The occasion for the discussion comes when he explains how repetition of a judgment produces the trace: it is not just the first judgment in the repeated series that is sufficient, nor is it just the last one. He concludes that it must be that the last judgment aided by the next to last, which in turn is aided by the one previous to it, and so on back to the first one.

Here the *sphoṭavādin* breaks in to urge that the meaning of a word or sentence is expressed not by the word or sentence but by its *sphoṭa*. Meanings cannot be expressed by any one of the letters that compose the word all by itself, and the aggregation of letters is impossible, since by the time we hear the end of the word or sentence the earlier sounds have ceased to exist. If to avoid this we adopt the view that each letter-sound is eternal, still the collection will not occur, for our judgments of the sounds come and go. Well, then, suppose each successive letter in the series as heard produces an impression which is modified by the impressions left by the previous letter-sounds in turn. But this will not do, since by hypothesis the sounds are eternal—therefore talk about a series of them is out of the question. In fact if letter-sounds are eternal the words "sara" and "rasa" should mean the same thing, unless there is some additional factor involved which differentiates our knowledge of the sounds in these two words. And there is: it is this additional factor we call the *sphoṭa*. The way this factor works is this: when someone speaks a sound an indistinct *sphoṭa* of that letter is produced which involves reference to the object denoted by the word being spoken; when all the letters have been spoken, the *sphoṭas* combine to produce knowledge of the object denoted.

Refutation of *sphoṭavāda*. The *sphoṭa* theory might have some force if we ever experienced anything like a *sphoṭa*, but we do not. We experience words as letters considered collectively rather than distributively, but we do not suppose there is some additional object over and beyond the collection of letters. As for the problem supposedly requiring the postulation of *sphoṭas* as its solution, though the earlier sounds have ceased to exist by the time the last sounds are spoken, still the impressions produced by those earlier sounds remain and it is the combination of those impressions which produces the knowledge of the object denoted. Maṇḍana Miśra in his *Sphoṭasiddhi* has argued against this that since impressions can produce in us knowledge only of that which laid them down, the cognition of the meaning of a word cannot be produced by the impressions of the letters. However, there is no reason why we should accept this restriction on the function of impressions. The *sphoṭavādin* will have to grant to the *sphoṭas* of the individual letters the power to produce in combination knowledge of the denotation of the whole word. Our view is similar but simpler, since we attribute that same power to the impressions and save postulating any ad hoc entity like a *sphoṭa*. Śrīdhara quotes Kumārila as an authority for his view.

133. (E661-64; T586-89) *Objection*: Merit is not a quality of the self but rather it is subclass of motion (*karma*), since the Vedas tell us that one gets merit by performing sacrifices. *Answer*: No, since a motion has but a momentary existence and has disappeared long before the happy result—gaining heaven, say—has come to pass. *Objector*: True, and for this reason we postulate a power in motion called *apūrva*, a power to produce action at a distance, so to speak. *Answer*: After the motion is finished, in what does this *apūrva* reside? Not in anything but the self, since it eventually produces its result there; thus it is a quality of the self, though you denied it above. Kumārila and Maṇḍana Miśra are considered to the contrary and rejected.

Śrīdhara expands a bit on the duties of the renunciate. He cites approvingly the steps laid down by Patañjali in the *Yogasūtras* as well as those mentioned in the *Nyāyabhāṣya* and the *Sāṃkhyakārikās*. Yoga is necessary as a means to self-knowledge. The self is neither the agent (*kartṛ*) nor enjoyer (*bhoktṛ*); all notions born of the embodiment of the self are false, producing merit and demerit and *saṃsāra*. Even the Buddhists hold this. When self-knowledge has been reached, we will realize that the self is as the *Sāṃkhyakārikās*

describe it, "like an onlooker, free from *rajas* and *tamas*, beholding *prakṛti* now withdrawn from her manifest forms."

136. (E686-89; T603-09) Having commented on Praśastapāda's account of the gaining of liberation, Śrīdhara raises the question whether liberation is gotten through knowledge alone, or through a combined path of knowledge and action (*jñānakarmasamuccaya*). His view is the latter, and it entails that even the seeker after deliverance must still perform the prescribed duties of his station, say of a Brahmin if he is a Brahmin. If he fails to perform these duties he incurs demerit. *Objection*: Failure to perform, being an absence, cannot produce a positive thing like demerit. *Answer*: True, an absence by itself cannot produce something positive, but together with other factors it can, and in this case a positive factor is the fact of just being alive. If one neglects his duty when it is enjoined and merely lives without acting as prescribed this is a positive misdeed and gains demerit. *Objector*: Self-knowledge can certainly destroy wrong actions, however. *Answer*: No, self-knowledge destroys wrong knowledge but nothing else. If it did destroy actions, it would destroy even those actions one is engaged in doing while gaining self-knowledge, and then *jīvanmukti* would be impossible, since one's body would fall off immediately upon realization. But it is not so; there is *jīvanmukti*. (Authorities are cited: Vedas, *Sāṃkhyakārikās*). Self-knowledge precludes new actions after its acquisition, but does not destroy actions already begun. The fruits of such actions must be lived out. What happens when one gains self-knowledge is that no new actions are begun since one is no longer conscious of agency, the external organs of sense having ceased to operate.

(E690-91; T609-11) *Question*: What is the true nature of the self? Some say that its nature is bliss (*ānanda*). But that is wrong. For is the bliss experienced by the liberated self or not? If not, it is nonexistent. If so, what is its cause? Body and senses have disappeared, and any effects of the internal organ are transient. *Objection*: Nonetheless, the self cannot be supposed to be intrinsically unconscious (*jaḍa*), or it would be like a block of stone! Being intrinsically blissful, when body and senses cease to operate the self's self-consciousness is necessarily blissful too. Otherwise liberation would be nothing but annihilation. *Answer*: If consciousness is essentially blissful, then it will be experienced always and not just after liberation. *Objector*: No, it is hidden by ignorance (*avidyā*). *Answer*: What could this mean? If consciousness' essence is to be blissful, then nothing can "hide" it.

155. (E748-52; T657-60) Some people argue as follows about universals: the universal is identical with its instances. We do not have judgments about two distinct entities, as in seeing a man with a stick, and we do not see a cow as qualified by a distinct entity *cowness*. When we say "this is a cow" we are identifying *this* with *a cow*, i.e., the universal. Each individual thing individuates itself and likewise classifies itself as of a certain kind. This explains the view known as *bhedābhedavāda* or "identity-in-difference." A universal is identical with each of its instances, which are different from each other. This being what is found to be the case, it is pointless to complain that a thing cannot be both the same with and different from another thing at the same time: that is just how things are!

Answer: This perception which proves the identity-in-difference thesis, according to you—is it the perception that the universal and the individual have the same form? or is it a perception of the non-difference (*abheda*) between them? or is it a perception that they have different forms? In the first case you are perceiving only one thing, so there is identity but not difference. In the second case, if there are two things they must differ somehow, so it is a contradiction to say they are identical. In fact, the third case is the correct one: we see *cowness* has a different form from an individual *cow*, and the fact that they are related in a peculiarly intimate way has to be explained by recourse to inherence.

(E756-64; T663-69) The Buddhist view on universals is set forth: they deny there are any universals, since we never are aware of anything inhering in a number of things like a string connecting a number of beads. *Answer*: The fact that the several cows are similar to each other and different from horses suggests that they have a factor in common. That factor cannot be *unity*, since unity depends on a cause and the cause must be the possession of a common character. Furthermore, if there are no universals how can we explain the denotation of words? The pure particular cannot be the denotation of a word, since it is momentary and could not therefore become associated with a word by convention. Nor can the denotation be the conceptual construction, since it too is momentary and is not common to several individuals. It might be the *form* of the conceptual construct, but that would be to admit universals as we do.

The Buddhist explains his view on this: Each individual cow has its own conceptual construction, but the conceptual constructions of the several cows are similar, though they each have their own form. A single conceptual construct could not lead us to perceive

the difference among the forms, however, since one has to compare two things to see their difference. Now since conceptual constructs are momentary we cannot perceive their difference and through this failure to grasp difference along with the pure particular, knowledge of it, the form of that knowledge and the form imposed (*āropita*), this collocation of factors being spoken of as "the four-and-a-half form" (*ardhapañcamākāra*). This appearance is what is denoted by words, and it is through this appearance that we cognize the pure particular.

Śrīdhara's reply: It is just as likely that the nondifference among the conceptual constructions should fail to be grasped as that their difference should be, since it is equally the case that in order to perceive the similarity of two things they must be compared. Therefore, the explanation that perception of universals is really failure to grasp the difference between things will not do. Nor will it do, however, to explain the facts by recourse to a supposed grasping of the similarity between things, since this would require a perceiver to be around long enough to perceive two things and since the Buddhists deny the self there is no such perceiver. Leaving that aside, there cannot be any grasping of similarity since there is on the Buddhist hypothesis no ground for such a perception.

Buddhist: But there is such a ground: it is the *absence of non-cows*. *Answer*: What are these "non-cows"? How can we identify them unless we already know how to identify cows! (Credit for this argument is given to Kumārila.) This notion that the *apoha* is the denotation of words is incorrect. For what is this *apoha*, this *absence of non-cow*? Is it positive or negative? If it is positive, then the difference from our view is verbal only. If it is negative, it cannot be the denotation of a word since it has no perceptible form, and thus cannot identify an object toward which we can exert our practical activities.

(E787-88; T685-86) Śrīdhara concludes the work by outlining the lineage of the *Nyāyakandalī*—naming the village in which he lived, the names of his parents, and the precise date of the composition of the work, 913 of the Śaka period (=A.D. 991).

27. ŚRĪVATSA

Udayana in his *Pariśuddhi* produces some arguments of this writer, and Dinesh Chandra Bhattacharya[1] quotes one verse which seems to him to imply that Udayana took lessons from Śrīvatsa. The arguments Udayana reviews are directed against Vācaspati's

views, and Udayana undertakes to defend Vācaspati against them.[2] Thus Śrīvatsa must come after Vācaspati but before Udayana, i.e., around the first half of the 11th century. He probably lived in Mithilā.

28. ANIRUDDHA

A manuscript of this writer's *Vivaraṇapañjikā* was discovered by K. K. Shastri in Jaisalmer in 1943.[1] This is a commentary on the *Nyāyasūtras*, *Nyāyabhāṣya*, *Nyāyavārttika* and its *Tātparyaṭīkā*. The first chapter of the manuscript is missing. Aniruddha's work is the first of its type—a commentary on the several commentaries and subcommentaries preceding him on the NS. Later writers who essayed the same kind of collective commenting were Śrīkaṇṭha and Upādhyāya Abhayatilaka. These works, however, include Udayana's *Pariśuddhi* within their purview, which strongly suggests that Aniruddha did not have that work in hand at the time of his writing. Furthermore, D. C. Bhattacharya[2] thinks Udayana refers to Aniruddha. On the other hand, Aniruddha apparently refers to Trilocana (or possibly Jayanta—a *Nyāyamañjarī*, in any case).

J. S. Jetly has indicated a few of Aniruddha's views. Aniruddha does not always follow the doctrines of those on whom he is commenting.

29. UDAYANA

Of all the Nyāya-Vaiśeṣika authors with the possible exception of the authors of the two sets of *sūtras*, Udayana is probably the most revered by followers of the school. He it is to whom credit is given by Naiyāyikas for having demolished in final fashion the claims of the Buddhist logicians. All his works, or at least all of which we know, have been preserved, which attests to the respect in which he was held from the beginning. In particular, his *Nyāyakusumāñjali* still finds a place in the curriculum of the classically educated Bengali, and is celebrated by modern logicians as demonstrating acute dialectical prowess. Ganganatha Jha[1] goes so far as to say that "Udayana was the pioneer of that Modern School. . . ." i.e., of Navya-Nyāya, which properly speaking is held to begin with Gaṅgeśa in the mid-14th century. Certainly Navya-naiyāyikas pay more attention to Udayana's analyses as a rule than to those of any other writer of the old school.

It is also a demonstration of Udayana's fame that legends, indeed conflicting legends, have grown up about his personage. It seems probable that he was a native of Mithilā. Satischandra Vidyabhusana[2] says "he was born in Maṅ-roni, a village 20 miles north of Darbhanga in Mithilā on the east bank of the river Kamalā." D.C. Bhattacharya[3] says that Vidyabhusana is "quite wrong," and that he lived in Kariyona near the modern railway station of Kāmataula. In any case, he seems to have been a travelling man. Several versions of a story are found, all of which involve a trip to Puri, some of which involve Banaras; from these versions we get the impression that Udayana was an aggressive personality. It seems that (to follow one[4] account) Udayana took a Brahmin and a Buddhist up a hill and threw them both down. As they fell, the Brahmin said "There is a God," while the Buddhist said "There is no God." The Buddhist died, and thus Udayana proved the existence of God. Becoming penitent, however, Udayana took himself off to Puri to see the god Jagannātha, but after three days and nights he was told in a dream that the god would not allow him audience. Therefore, Udayana retired to Banaras and performed *tuṣānala*, i.e., burnt himself to death on a slow fire. As he died he uttered a verse, one version of which Ganganatha Jha[5] translates as follows: "Intoxicated with greatness You treat me ignominiously. But you forget that when the Buddhists were in power Your very existence depended on me !" According to Jha, who does not have the theistic-proof-by-survival bit, Udayana addressed this verse directly to the god at the temple in Puri. Anantalal Thakur[6], on the other hand, reports that according to the *Bhaviṣyapurāṇapariśiṣṭa* Udayana defeated some Buddhist logician in a controversy in the presence of a king of Mithilā, the controversy concerning the existence of the self. The terms were such that the Buddhist fell from a palm tree and died, after which the king accepted Udayana as his *guru* and all Buddhist texts were destroyed. That is why the temple at Puri was closed to him, since he had caused death. D. C. Bhattacharya[7] has the story much like Vidyabhusana, involving the proof by jumping, except that according to him it was Udayana who matched the Buddhist by jumping with him, and by living while the Buddhist died he made his point. On the other hand, in Bhattacharya's version Udayana was "honored by Lord Jagannātha at Puri as His own incarnation and died a natural death in old-age at Kāśī."

There is no question that Udayana had a high reputation as a debater. In addition to his debates with Buddhists, he is also credited with having debated and defeated one Śrīhīra, who was the

father of Śrīharṣa, the redoubtable Advaita dialectician whose *Khaṇḍanakhaṇḍakhādya*, containing many arguments against Udayana's views, was composed to avenge his father.[8]

One of Udayana's works, the *Lakṣaṇāvalī*, contains a dating reference which appears as 906 Śaka, i.e., A.D. 984 to 985. D. C. Bhattacharya[9] suggests that this is a misreading or miswriting, that the proper date is 976 Śaka, i.e., A.D. 1054. Bhattacharya gives elaborate arguments[10] to support the dating of Udayana during the latter half of the 11th century. For one thing, since Śrīharṣa flourished between 1125 to 1150, his father could not easily have debated Udayana much earlier than the latter part of the 11th century. Further, other 11th century writers who would have been expected to know Udayana do not, while all 12th century writers seem to. As a final point, we find that Udayana quotes Jñānaśrī and Ratnakīrti, the Buddhist logicians, who according to the Tibetan evidence were alive in the second quarter of the 11th century, and he must follow Śrīdhara (991), with whose views he quarrels.

Udayana is credited nowadays with seven works, and Bhattacharya[11] has attempted to reconstruct the order of their composition. We follow his ordering in the summaries provided below.[12]

1. LAKṢAṆĀVALĪ

Summary by Karl H. Potter

This work is a brief series of definitions of key Nyāya-Vaiśeṣika notions. Its interest lies mainly in the style and character of the definitions, not in their content, which does not usually depart from accepted tradition. Since it is difficult to give the spirit of style in a summary, the treatment below is brief but, it is hoped, suggestive.

(Page references are to Sasinath Jha's edition (B2682A), Mithila Institute Series No. 14, 1963).

1. (p. 1) After an invocation addressed to the "Lord of the mountain," Udayana defines entities belonging to the categories as "nameable" (*abhidheya*). Such entities are of two kinds, positive things and absences.

2. (p. 2) The positive kind is defined as a content (*viṣaya*) of a judgment which does not have the kind of contentness whose object (*artha*) is negative (*nañ*). It has 6 varieties, substance and the rest. Of these the noneternal substances, the qualities, motions, universals, and individuators are things which inhere in other things.

Substances, qualities, and motions have things inhering in them. Universals, individuators, inherence, and absences do not have things inhering in them.

3. (pp. 2-3) Several alternative definitions of substance are suggested, the first of which is that a substance is a thing which is not the locus of an absolute absence of qualities. The 9 substances are identified, and darkness is shown not to be an additional substance. The reason darkness is not a substance is that it is graspable by the eye without dependence on light, like absence of light. Darkness is not identical with absence of light, according to Udayana.

4. (pp. 4-6) Earth is defined, e.g., as that which is free from the absolute absence of smell, and the eternal and noneternal kinds are distinguished. Some inferences are suggested for proving the existence of eternal earthy things, i.e., atoms. The body is defined as the final whole which is the locus (*āyatana*) of enjoyment (*bhoga*). A sense organ is a supersensible thing which is the instrument of immediate judgments about contacts (of things) with the body. Immediacy (*aparokṣatva*) is the kind of judgment which is not produced through another judgment. A content (or object, *viṣaya*) is a thing which, when it is known, produces enjoyment (*bhoga*).

5. (pp. 7-9) Water is defined so as to include ice and hail. The association of the quality of taste with water is explained: it is because tasting involves water even when what is being tasted is, say, grain.

6. (pp. 9-11) Fire (*tejas*) is defined as the locus of color which is also the locus of the absolute absence of taste. Or it may be defined as a thing which possesses a universal which does not occur in hail but does occur in shiny minerals. This leads to a defense of the thesis that gold is fiery by nature.

7. (pp. 11-12) Air possesses touch in the same locus as the absolute absence of color.

8. (p. 12) *Nabhas*—i.e., *ākāśa*—is what is not the locus of absolute absence of sound.

9. (p. 13) Time is what is free from being the residence of unregulated (*aniyata*) priority, the regulation occurring either through the inherence relation or not; it is also free from materiality (*mūrtatva*).

10. (p. 14) Spatial direction (*dik*) is treated in a parallel fashion.

11. (p. 14) Selves are free from absolute absence of judgments. There are two kinds—godly and nongodly.

12. (p. 15) The internal organ is material but lacks touch. Or else it is a material thing which is the locus of the absolute

absence of the specific qualities. The specific qualities are those which possess a universal which is pervaded by qualityness and does not occur in anything which cannot occur in earth.

13. (p. 16) Now Udayana turns to the qualities, first to the definition of a quality. Again more than one definition is offered. The general aim is to offer a definition which does not overextend to include certain universals.

14. (pp. 16-18) The 4 sense-qualities (excluding sound) are described, and their varieties explained.

15. (pp. 19-24) The rest of the qualities are defined.

16. (pp. 24-25) Motion is defined, and the fifth sort defended on the authority of the writers of scientific works.

17. (p. 25) Universals, individuators, and inherence are defined.

18. (p. 26) Absences are defined as things which are the objects of the notion of "not." The 4 kinds are listed. Absolute absence is said to be a relational absence (*saṃsargābhāva*) which is free from limits at both ends.

2. LAKṢAṆAMĀLĀ

Summary by S. Subrahmanya Sastri

The authorship of this work has been debated. Anantalal Thakur[13] has found that a work by this title is attributed to Udayana by Varadarāja, Mallinātha, and Abhayatilakopādhyāya. It is evident that Śivāditya also wrote a work called *Lakṣaṇamālā*, and it is this which leads Pandit Subrahmanya Sastri[14] to identify the work as that of Śivāditya. However, Śivāditya's work seems to have been based on the *mahāvidyā* syllogism, and quotations from it are not found in our present treatise. Śivāditya's work was in all probability a longer and altogether more important text than Udayana's, which is very brief. Udayana's work is merely a summation of the topics of the Nyāya system. It follows the *Nyāyasūtras*' 16 categories, in contrast to the *Lakṣaṇāvalī*, which follows Vaiśeṣika.

The work has been edited twice.[15] Page references here are to Subrahmanya Sastri's edition (B2679) in the *Journal of Oriental Research*.)

1. (p. 46) The author defines a valid judgment (*pramā*) as the experience of reality. It is twofold: eternal and noneternal. The locus of the eternal is the instrument of valid knowing which is God. The loci of the noneternal sorts are the other instruments.

2. (pp. 46-47) The 4 instruments are defined.

3. (pp. 47-48) The third category, object of valid knowing, is defined as that which is the content of a valid judgment. There are two sorts of such objects. One is that which, being known wrongly, leads to desire and hatred. The other is that which, being known correctly, uproots the causes of bondage.

4. (p. 48) Of the 12 objects, 6 are defined here. The other 6 are ignored, since their definition is clear in the *Nyāyabhāṣya*.

5. (p. 48) Though there are other objects, such as substance, quality, etc., the 12 in the *sūtras* are discussed since it is their knowledge which leads to final liberation.

6. (pp. 48-49) The Vaiśeṣika categories are, nevertheless, defined.

7. (pp. 49-52) The other categories, viz., doubt, purpose, etc., are given simple definitions.

8. (p. 52) The author closes the work with a salutation to the Supreme Self.

3. ĀTMATAṬTVAVIVEKA

Summary by V. Varadachari

Page references are to the Bibliotheca Indica edition (B2676), Calcutta 1939).

In this work the author undertakes an investigation into the nature of the self. The arguments, which Udayana gives while proving the existence of the self, are mainly directed to refuting the theories of the Buddhists, who deny the stability of the objects existing in the world and maintain that there is no self. Having established the existence of the self, Udayana discusses briefly matters such as God's existence, the validity of the Vedas, and the goal of life.

The text of the *Ātmatattvaviveka* published in the Bibliotheca Indica Series is divided into four sections under the names Kṣaṇabhaṅgavāda, Bāhyārthabhaṅgavāda, Guṇaguṇibhedabhaṅgavāda, and Anupalambhavāda. For a clear understanding of the text it will be proper to have 5 more divisions, namely (1) an introduction at the beginning, (2) establishment of the self, (3) establishment of God and of the authority of the Vedas, (4) the concept of final release, and (5) conclusion.

I. *Introduction*

1. The work opens with a stanza conveying the author's salutations to God. The main aspects of the Nyāya-Vaiśeṣika conception of God are touched on here. God is the father and the Lord of the worlds, and is the foremost among the ancient preceptors. To Him belong the worlds; they owe their creation and maintenance to Him. Having created them, He arouses the people to become active. He makes provision for the people to do what is beneficial to them and to avoid what is harmful. His utterances are true and authentic. His guileless compassion shows that His undertakings are intended for the removal of the miseries of people.

2. The author then shows the need for undertaking an inquiry into the nature of the self. People experience the miseries of life as unpleasant and seek to have them removed, but they are helpless, as they do not find the proper means for this. The scientific treatises (*śāstra*) declare that knowledge of reality (*tattvajñāna*) is the only means for obtaining relief from miseries. The self, which is taken as reality, must be cognized correctly in its relation to the rest of reality, as that is understood in the various systems of thought.

3. While denying the existence of the self, the Buddhists put forward their arguments under four heads. (1) *Kṣaṇabhaṅga*: They contend that there is nothing like a permanent entity called a self, as against its existence which is maintained by the orthodox schools of Indian philosophy. The word "kṣaṇabhaṅga" shows that everything which is taken to exist lasts only for a moment. This applies to everything in the world including the self. (2) *Bāhyārthabhaṅga*: This word conveys the theory that the things which are taken to have external existence do not have existence at all, even of a momentary nature. Such things taken to have external existence are usually contrasted with judgments, which have existence internally. The self, which is considered to be different from its judgments (according to the Nyāya-Vaiśeṣika school) is an external entity and so does not have existence at all. (3) *Guṇaguṇibhedabhaṅga*: This connotes the denial of any difference between a quality and the thing which "has" that quality. Now since the self, on the Nyāya-Vaiśeṣika account, is taken to be distinct from its qualities, this shows that there is no such thing as a self. (4) *Anupalambhabhaṅga*: Since the self is not apprehended, it must be taken to be nonexistent. It is these four objections which are refuted in the next four sections respectively.

II. *Kṣaṇabhaṅgavāda*

4. (pp. 22-34) According to the doctrine of momentariness, whatever exists does so only for a moment. This is proved by the invariable concomitance[16] between existence and momentariness. An object existing at a particular moment is found to give rise to an effect and so is declared to have the capacity to produce that effect : this capacity is known as *arthakriyākāritva*. It did not have this capacity in the moments prior to this one, and will not have it afterwards. Now capacity and incapacity are characteristics that are opposed to each other; they cannot belong to one and the same object. Hence an object which has a capacity must be different from one which lacks it. The object of one moment is therefore different from the previous one, as well as from the next one afterward. Thus, says the Buddhist, an object does not remain even for two consecutive moments.

5. (pp. 34-46) This stand of the Buddhists is studied and rejected. The word "capacity" may also mean fitness, which means the availability of the full complement of accessories (*sahakāri*) which the cause requires for producing its effect. In this sense the word "capacity" shows that a cause produces an effect only when it is associated with accessories. "Incapacity" will then mean that the accessories are not associated with the cause, which therefore does not produce the effect. The association of these accessories with the cause may take place only at certain moments. That does not mean that the object, i.e., the cause, during that particular moment must be a different object from the cause at the previous and at subsequent moments.

6. (pp. 48-49) The word "capacity" may also be taken to mean a characteristic pertaining to the cause. In that case, this characteristic may be universal which characterizes the object. E.g., in the case of a seed which produces a sprout, such a universal will be *seedness*. That it is this characteristic that conditions the operative faculty of the cause is proved through agreement and difference (*anvayavyatireka*). *Seedness* must be present in all those objects called "seeds" as long as they endure. So all seeds must have this capacity at all moments, and cannot lack it.

7. (pp. 50-85) The Buddhists explain why a seed produces the sprout at a particular moment by showing that a particular property called *kurvadrūpa*, which is included in the main cause, comes into existence in the cause when it is about to produce the

effect. But this position is untenable, as the presence of this property is not born out by perception or inference. This property cannot be said to produce an effect without any delay, as it must produce the effect at that particular moment and cannot continue to exist until the seed, out of which the sprout is to be produced, comes into existence. That is, when it is to come into being that particular seed may not be there, since it is said to have only momentary existence. Besides, "producing an effect without delay" must mean only that the delay in the production of the effect cannot occur when the accessories are present in association with the cause. If there is any delay in the production of the effect it must be due to the absence of the accessories associated with the cause. An object lasts from the moment it is produced until it is destroyed, without getting associated with any universal properties other than those to which it belongs by nature. It gives rise to effects which are similar and dissimilar in their nature due to the variety of the accessories with which it gets associated from time to time. If, however, it is held that the *kurvadrūpa* alone is responsible for the production of the effect, then if it exists in a *śāli* (a kind of paddy) seed which produces a certain sprout, it must also exist in all *śāli* seeds whether kept in the granary or sown in the fields. If this is not admitted, the *śāli* seed will never have the capacity to produce the sprout. Therefore the admission of *kurvadrūpa* is not warranted in accounting for the production of the sprout.

8. (pp. 57-66) The capacity which a cause is said to possess as its characteristic property cannot be identified with the absence of the effect, an absence caused by a deficiency in the accessories, for this amounts to admitting that if a cause does not produce the effect in the absence of x it must produce that effect in the presence of x. This x is nothing but the accessory. Therefore it is to be admitted that a thing or cause endures for several moments.

9. (pp. 89-106) *Seedness* determines the capacity of the seed to produce a sprout whether the seed is kept in the granary or not. Otherwise the sprout can as well be produced without a seed.

10. (p. 118) As regards the Buddhists' claim that an enduring cause would have a contradictory nature, having both capacity and incapacity, the nature of contradiction requires study. Contradiction cannot be identified with mutual absence as that entity relates to eternality and noneternality, for example, since mutual absence of this sort cannot be proved to exist between capacity—which consists of the ability to produce an effect at one time—and incapacity—which is the inability to produce the same effect at another time.

11. (pp. 117-56) Again, contradiction cannot consist in characteristics which belong to the same object being opposed to each other like hot and cold, for the cause operates to produce the effect only when it is associated with the accessories, and nonproduction of the effect is the absence of the operation of the cause when it is not associated with the accessories. There is no contradiction between production and nonproduction, since the accessories are present near the cause at one time and are absent at the other time.

Contradiction cannot be said to occur between two things which have mutual absence, as in the cases of one person having a stick and the other an earring, for in these two cases the persons are different. This difference is not due to the things possessed by them. Such a difference does not exist in the present case.

12. (p. 157) It is not right to say: "objects must have momentary existence, inasmuch as one object cannot both have association with the accessories and not have such association." For an object can have contact with accessories at one moment, and not at the next; at the next it may, however, have connection with some other accessories and produce some different effect.

13. (p. 164) It is wrong to try to solve the alleged difficulty about contradictoriness by postulating that the accessories come into non-locus-pervading contact with the cause, and thus that they are both in contact with and not in contact with the cause, since they are in contact with one part only. The opponent wants to use this as an argument for construing objects as aggregates of ultimate particles, viz., atoms. But the position is absurd, as there can be no non-locus-pervading contact with an atom, which *ex hypothesi* is supposed to be the ultimate cause, especially if objects are aggregates of atoms.

14. (p. 167) Thus invariable concomitance cannot be proved to exist between existence and momentariness. If agreement cannot prove this, difference cannot either. If one tries to prove through the method of difference that nonexistence and nonmomentariness are invariably concomitant, he must first admit that both exist. But this admission undermines the Buddhist's case.

15. (pp. 192-93) Expressions purporting to designate unreal things are meaningless. There are of course usages like "hare's horn," which are to be brought under erroneous judgments understood according to the *anyathākhyāti* model, since the object, namely the hare's head, on which the superimposition is made, is at a particular place and the horn which is superimposed on it is not in the

same place. This model for error is not available to the Buddhists, for they hold everything to be momentary, and so things do not last long enough to be superimposed elsewhere. Fallacies of the *hetu*, and linguistic mistakes, also come under error according to the *anyathākhyāti* model. They cannot be explained according to the Buddhist's *asatkhyāti* model, since an error must be about something, and on the Buddhist model there is nothing for the error to be about.

16. (pp. 195-98) Convention does not give rise to usages of words designating unreal objects, since such objects cannot be known in any fashion. Past impressions, or traces, could not explain the rise of judgments of this kind, for then such judgments would become eternal, since nothing could destroy them once they were produced.

17. (pp. 210-18) A judgment about a hare's horn cannot be construed in a fashion parallel to a judgment about the absence of a jar, since the nonexistence of the jar, which is distinct from the ground where a jar would rest, is known through valid instruments of cognition, while it is not so with the hare's horn. The difference between a jar and its absence is real while such is not the case for hare's horn.

18. (p. 223) The Buddhist[17] now offers a defense for his theory of momentariness by explaining that destruction is bound to happen to an object and so is uncaused. That being the case, anything that is produced must get destroyed the next moment.

19. (pp. 223-28) This defense admits of 5 interpretations. (1) It may mean that since destruction is uncaused, this destruction and the object destroyed are identical. Acceptance of this position cuts at the very root of variety in the world; everything becomes identical.

20. (pp. 231-32) (2) It may mean that as there is no trace left at t_2 by an object existing at t_1, destruction of the object can be described as characterless. This would lead to the admission that the object is in the same condition at all subsequent moments also, as there is no means of finding out how to identify the moment when the object is destroyed. There must be a cause for destruction, by reference to which we can verify its occurrence.

21. (pp. 235-36) (3) That destruction is uncaused may be taken to mean that it is brought about by the object itself. This, as it stands, is absurd; if the object causes its destruction, destruction is not uncaused. On the other hand, if it is admitted that it is not the object by itself which produces its destruction, then the other factors must be identified; these are "accessories."

22. (p. 258) (4) The Buddhist doctrine may be interpreted to mean that destruction pervades the object. However, this cannot be maintained, for there is neither identity nor causal relationship between the two, and according to the Buddhist these are the only varieties of invariable concomitance. And even if we consider it according to the Nyāya-Vaiśeṣika conception of pervasion, destruction does not pervade the object destroyed.

23. (pp. 260-61) (5) Lastly, the view may be construed as an argument of the following form: Destruction is uncaused, because it is an absence; absences are without a cause, like prior absence and unlike jars. Counter arguments can be provided against this one. For example, it may be argued that prior absence is caused, since it is an absence, like destruction; or again, prior absence is caused, since it is destructible, like a jar. Or suppose we admit that prior absence is uncaused, still: Prior absence cannot be destroyed, because it is not caused, like sky or hare's horn. The arguments on both sides fail to establish anything and so nothing is proved, certainly not that destruction can be uncaused.

24. (p. 267-78) On the other hand, it can be proved that objects have enduring existence by appeal to the fact of recognition (*pratyabhijñā*). Objects are found to remain the same beyond the moment of their production, for they are not found to have contradictory features. Thus it is found from experience that they do not change from moment to moment. It is also found from experience that the form with which an object is normally associated is its real form. If it were not, activity arising toward that object could not be explained.

25. (pp. 278-82) The Buddhists hold that the object is associated with a certain characteristic form because that form represents the absence of some other form. This view is called *apohavāda*. According to it each object has got in it the absence of, or difference from, those things that are different from itself. This shows that the form which the object seems to possess is not real, and that its real form is negative in character. The Nyāya school rejects this position and holds that the object has a positive form. Activity arises with reference to positive, not negative, things.

26. (p. 289) Some Buddhist scholars[18] hold that when an object presents itself with its positive features, there appears also the negative form which is subordinated to the positive features. This being the case, they say, references to the real form of the object cannot be made out as true, since amidst both kinds of features it is

impossible to distinguish which are the positive and which the negative ones.

27. (pp. 289-314) This interpretation is unsound, answers Udayana, for one and the same object cannot have both positive and negative features. It cannot therefore be claimed that the negative features are subordinated to the positive ones. The *apohavāda* theory might stand if the pure particular could appear without its positive features, and if unreal (*alīka*) things could present themselves without their negative features. The Buddhists, however, hold that the pure particular presents itself with its positive features. And in the case of unreal objects, they have no features at all to be presented.

28. (p. 330) The Buddhists maintain that the pure particular is the object of perception only, not of inference or of verbal testimony. If all the instruments of valid judgment could operate on the same object, there should be differences among the judgments produced by each of these instruments. Thus a judgment about an object arising from perception is distinct and is confined to a place and a time, while those produced about the same object by inference and verbal testimony are of an indistinct nature and are not determined as to place and time. Hence the pure particular, which is apprehended by perception, must alone be real, while those objects that are apprehended by the other means of proof must be unreal.

29. (pp. 332-38) This interpretation is met by the declaration that judgments of the same object remain the same irrespective of the instrument employed. The slight differences among these judgments, if noticed at all, must be taken to have been brought into existence by defects in the operation of the instruments or in other factors ancillary to their operation. An object cognized at one time with a particular feature does not become changed later, nor does it present itself differently to another person. Distinctness and indistinctness in judgment are due to factors other than the instruments employed. E.g., an object seen from nearby presents itself distinctly, while one far away is indistinct. Nothing can be said about the nature of a judgment that a thing has certain features, when in fact no such judgment arises; spatial and temporal features may not always be presented in judgment when an object is seen from various distances. The variety among such judgments does not prove that their objects must be different.

30. (p. 344) The difference between propositional and non-propositional judgments does not affect the identity of their objects. Judgments perform two functions: they identify their objects and

show the species to which they belong. Once the objects are identified they may be found to be different from the objects of other judgments, or perhaps the same. Even if they are different, it is not their difference, but the difference in the causes of the judgments, that is responsible for the disparity between propositional and nonpropositional judgments. And we cannot know which sort of judgment we are entertaining until the subsequent stage of apperception (*anuvyavasāya*).

31. (p. 351) Since the last is the case, it cannot be held that when an object is apprehended its difference from what is different from itself is also apprehended. If those other things are also cognized, then *their* pure particulars must be known. The principle of *apoha* will have to be applied in their cases too, and this will lead to infinite regress. If the other things are not cognized, then the difference of the present object from them can never be known.

32. (p. 356) Traces (*vāsanā*) cannot be taken to give rise to the *apoha* type of identification, as the apprehension of yellow—which would rise due to the apprehension of blue[19]—would produce in turn activity on our part with reference to blue. If you say no, that the judgments are nonpropositional, then it would follow that judgments never produce any activities whatsoever. Perhaps, then, you will say that activity only arises from propositional judgments produced from nonpropositional ones: but then inferential judgments and those derived from verbal authority would not lead to activity, since they are not produced from nonpropositional judgments.

33. (p. 358-64) The Buddhist may say that the operation of experience (*anubhava*) is responsible for the correctness of a nonpropositional judgment. But if this operation is with reference to the object of perception, then we can get along without the nonpropositional judgment altogether. This operation cannot be supposed to prove that there is similarity of form (*sārūpya*) between the pure particular and the unreal object which is the object of propositional judgments. How can there be sameness of form between what is real and that which is completely unreal?

34. (pp. 368-74) The efficacy of a cause cannot give rise to activity with reference to an object unless the efficacy is admitted to belong to a definite species. If this is not allowed, a nonpropositional judgment of fire may give rise to activity with reference to water. Since the materials out of which a judgment and its object are constructed are different, there cannot be sameness of form between a judgment and its object. If this were not so, there would be no

difference between a conscious and an unconscious thing. Thus we conclude that judgments give rise to activity with reference to the objects presented through them; that is their causal efficacy.

35. (pp. 401-14) The Buddhists[20] object to the existence of universals (*jāti*) on the ground that a universal is not perceived in the interval between the passing out of existence of one individual and the coming into being of another. This objection is meaningless, since at that time there is no individual, and it is only through individuals that universals can be made known. Universals occupy just precisely the same loci as the individuals they inhere in and no others. They are perceptible.

36. (p. 423) The Buddhist proposes the theory of *apoha* because he is convinced that ultimate truth is not expressible through the normal means of identifying objects by reference to their characteristic features. But if so, the Buddhist might as well give up his doctrine of the pure particular. Also, if words do not identify things by distinguishing one from another, then all arguments are beside the point, especially the Buddhists'.[21]

III. BĀHYĀRTHABHAṄGA[22]

37. (p. 429) According to the idealistic theory of Buddhism, there is no object that has existence outside judgments. So the self, which is distinct from its judgment and so external to that judgment, cannot have existence, they say.

This theory admits of 3 interpretations: (1) there is no difference between the judgment which apprehends and the object which is apprehended by it; (2) both judgment and object belong to the same species; and (3) the object is unreal while the judgment alone is real.

38. (pp. 431-64) According to the first interpretation, there being no difference between the judgment and its object, the two are to be treated as identical; thus there is no additional, external object over and beyond the judgment which *is* the only object. Such an interpretation does not stand to reason, for the identity between the judgment and its object can only be established if we suppose that we can cognize the object through the judgment, and the judgment has features different from those characteristic of the object. So they cannot be identical. The object presents itself in a judgment as it actually is and not in a form which is not its own. If the difference between a judgment and its object is not real, then the nature of a judgment cannot be established. On the other hand, if the two

are identified because we fail to note their difference, we cannot be said to have cognized them both together. Nor can the Buddhist appeal to the *apoha* theory here to account for the identity among the apparently multifarious external objects, as the *apoha* theory loses all validity if there is no difference at all.

39. (pp. 470-72) The Buddhist proceeds to analyze the relation between a judgment and the object which is its content. He argues that they must be identified, since there is no operation performed on the object by the judgment which affects the object in a recognizable way, and since among the characteristics of the judgment *y* one does not find the universal *making-known object x,* while among the characteristics of the object *x* one does not find the universal *made-known-by judgment y.*

This position Udayana answers by showing that the same reasoning can be used to show that the judgment and its object are different. The lack of any effect produced in the object when it becomes known, which is used by the Buddhist to prove identity, may just as well be used to prove nonidentity. Indeed, by appealing to this rule we would not even be able to know that a judgment is a judgment, since no effect is produced in the judgment itself by itself or another judgment's "knowing" it. As for the second argument, here the principle appealed to is that two things are not different unless they are the loci respectively of relational universals indicating the difference between them. But to appeal to this rule would result in the identification of things the Buddhist does not want to identify—e.g., one person's judgment of *cow* would be identical with another's.

40. (pp. 477-79) Buddhists[23] recognize reality as that which is distinct from (i) the existent; (ii) the nonexistent; (iii) what is both existent and nonexistent; (iv) what is neither existent nor nonexistent. This is really wonderful! It may be pointed out here that instead of taking this position reality could be admitted to have all 4 of the characteristics mentioned above, for this would be equally wonderful! But seriously, the Buddhist cannot maintain reality to be none of the above, for to maintain this he is making use of the notion of denial, which is no longer available to him since he accepts the existence of nothing which could be denied.

41. (pp. 481-84) The second interpretation (of section 37), that the judgment and its object belong to the same species, cannot stand. The Buddhist holds that the basis of his idealistic theory lies in the nihilistic doctrine that both what is within and what is without are unfit to be apprehended, but that the existence of the

blue (pure particular) cannot be denied. This standpoint is absurd, since if the blue cannot be denied to exist it must be fit for apprehension, or if not it must be denied to appear. In either case there is presupposed something to apprehend, or fail to apprehend, something distinct from the pure particular itself.

42. (pp. 490-91) As to the third interpretation (of section 37) according to which the judgment is real and the object not, the question is what "unreality" means here. If it means that the nature of the object is inexpressible, this may be admitted without necessarily admitting also the nonexistence of the object. This is on the supposition that the object's inexpressibility is due to our difficulty in knowing it. If its inexpressibility is due to the fact that it is absolutely unreal, then such talk is meaningless. If we can speak of x, it cannot be absolutely unreal.

43. (p. 492) It is only with reference to a real object that a judgment about it arouses a desire or aversion with respect to it, gives rise to successful effort, produces activity and accomplishes finally the acquisition or avoidance of it. This process does not apply to the unreal.

44. (pp. 496-99) The Buddhist may say that the universe is unfit to be reflected upon regarding its feature because of some defect there. But this is wrong. If this absence of fitness is because of some defect in the object, then it cannot but become an object of reflection. An analogy is cited here in support of the Nyāya view. A young monkey listened to the news brought by Hanumān from Lankā, felt envious of the latter's glory, and jumped and fell into the sea to find whether Hanumān really could have crossed it. Unable to proceed further owing to the depth of the ocean, it came back to shore and said that Hanumān's crossing could not have taken place at all! Likewise, unreality cannot be attributed to a thing merely because of the inability of a person in cognizing it. The world should not be held to be unknowable or indescribable because a man born blind cannot know or describe a blue jacket.

45. (p. 501) Udayana now turns to examine whether the ultimate truth is void as the nihilists hold. If voidness is not established by itself, then the universe cannot be declared void. If it is proved through conventional truth (*saṃvṛtisatya*), then there is no difference between the universe and voidness. If conventional truth is not what is taken to prove this, then something else will be required which also being void would require another to prove voidness. Thus infinite regress will result. What is not established cannot prove voidness. Or if it is supposed that it can, the position

becomes tantamount to that of the Vedāntins.

46. (pp. 503-4) According to the (Advaita) Vedāntin, what establishes the "voidness" of the universe is eternal, characterless, and real. It has no relationship with the world which is unreal. Conventional truth is responsible for all worldly transactions on the part of human cognizers. The experiences and verbal conventions of the world are due to ignorance (*avidyā*). Experience of the world as objective arises on account of conditions brought into existence by ignorance, and thus there comes to be difference in the world.[24]

47. (p. 508) Thus it must be admitted on the strength of experience that what is different from judgment also presents itself. The external world being thus established, its nature requires study. All schools of thought do not have the same view concerning this. Some hold that the external world is real, that judgments produced thereby are noneternal, and that the relationship between the judgments and the external world is dependent upon the judgments.[25] Some hold that the nature of the external world depends both on judgments and objects, the judgments again being held to be noneternal.[26] Other schools treat the external world as unreal. The Yogācāra school considers judgments noneternal, in which case the external world is dependent upon judgments alone.[27] Some however treat judgments as eternal, in which case their nature is entirely dependent upon the external world.[28] It is the position of the Nyāya school which is presented here. In its view the particular nature of an existent object presents itself in judgment. This nature belongs to that object alone and not to any other. It is this nature which constitutes the relation between a judgment and the object which is its content. Since this is a self-linking relation, it does not require the aid of anything else for making its appearance.

48. (p. 517) The purpose achieved by this relation consists in arousing activity toward the object. Internally, it serves to identify the judgment that has arisen.

49. (p. 522) The nature of the external world cannot be said to depend upon both judgments and their objects, as in that case judgments would be stable and would not undergo any change. And that nature cannot be said to depend on the real external world alone while judgments are held to be eternal, for this would lead to the admission of the *satkāryavāda* position of Sāṃkhya, which cannot stand owing to the breakdown of the relation between cause and effect. For the causal relation cannot be discussed without reference to the disappearance of what was prior and the appearance of what is posterior. This is not possible on the basis of *satkāryavāda*.

Again, the nature of the external world cannot be held to depend on momentary judgments, the external world being unreal, for what is unreal cannot have any nature to present. The Yogācāras, who hold this view, treat judgments as formless (*nirākāra*). Hence the nature of objects cannot be identified.

50. (pp. 524-27) Objects cannot both be said to be identifiable and not to exist. If they do not exist, they may have reference to a time other than their own, in which case other times and place have to be recognized during which they exist. Or they may be taken to exist in a place different from that presented, in which case they cannot determine the judgment. What may be meant, on the other hand, is that judgments are formless, as above. But even if so, a judgment that something is blue must be taken to deny of that thing that it is blue, which is to say, to assert that it is non-blue. Either the blue or the non-blue must be real; if neither are, they cannot be said to be identifiable.

51. (pp. 527-29) *Buddhist*: Unreality consists in a thing's not being amenable to reflection (*vicāra*). *Answer*: No, for since anything which has a form is amenable to reflection, an unreal object cannot have any form at all. Thus the Buddhist who just spoke must agree to the position of the Advaitin's *anirvacanīyakhyātivāda* or to that of the Naiyāyika who maintains the reality of the external world.[29] There can be no judgments if the differences among objects are ignored. If these differences eventually become sublated, the Advaita Vedānta school must be considered to be vindicated. If not, the world must be taken to be real as we find it.

52. (pp. 530-31) If one supposes that one can give arguments for the unamenability of a thing to reflection, or its indescribability, this is like the fools who, having seen an elephant at the entrance to the palace, imagined it to be darkness, cloud, a relation, etc., adducing their reasonings to support their contention. After counterarguments were presented by others among them to disprove each of the above descriptions, they then concluded that it was nothing! But this does not mean that there was no elephant there![30] Considerations like these do not deserve discussion.

53. (p. 533) A statement conveys its sense only if it is confined to the limits of worldly experience. E.g., "this mountain has fire," which possesses expectancy (*ākāṃkṣā*), appropriateness (*yogyatā*), and contiguity (*saṃnidhi*). Its meaning does not depend on other instruments of cognition and does not allow for any argument that sets aside its sense. On the other hand, passages that do not fulfil these conditions do not convey any sense, e.g., "this mountain,

Devadatta is white," "the mountain is eaten by Devadatta and has smoke," "the hare has horns," "this mother is barren," "I am dumb," etc.

54. (p. 541) The Buddhist's statements do not convey any sense. Such statements are: "Nothing exists," "nothing is real," "nothing does anything," "nothing deserves any discussion," "nothing has any basis," "nothing is known," and "nothing is there." In all these cases there is self-contradiction and consequent lack of sense.

55. (p. 544) If a thing is established (through a judgment) it cannot be totally denied (to exist). If it is not established, the denial of it has no significance.

56. (p. 561) The Buddhist at this stage takes up a discussion concerning the nature of difference. He addresses a dialectic against the tenability of the notion of difference. Difference between two objects cannot be held to be the natures of the things themselves, for the words "jar" and "difference" do not mean the same. Difference cannot be mutual absence of *x* in *y*, for to prove that *x* differs from *y*, i.e., is absent from *y*, one must establish the existence of a counterpositive (e.g., *y*)—and this begs the question. To hold that difference is a property of an object is to initiate an infinite regress. Hence difference cannot be held to have any existence, says the Buddhist.

57. (pp. 564-68) These arguments do not stand to reason, replies Udayana. We do entertain judgments concerning the differences between things. These judgments cannot be said to be eternal, since in deep sleep they cease. They are, therefore, non-eternal. Thus they are necessarily caused. And if they are caused they must be about some object, namely the causes, and thus difference is known. This is true even if the cause is something else than the object which is presented in judgment (as in the Advaita account).

It is true that if difference were construed as a property an infinite regress would ensue, but that only shows that that is not the proper way to construe difference. Nor is it correct to construe difference as mutual absence of a given thing from everything else, for then everything would be cognized as self-resident (*ātmāśraya*). Since we have judgments of difference in addition to the judgments by which we identify something as of a given kind, that difference must have something else as its cause other than mere mutual absence. Ignorance (*avidyā*) cannot be said to be the cause, for then jars and other things could be said to exist without depending for their existence on causal factors. So the right alternative (among the

alternatives offered in section 56, is that difference is of the nature of things themselves, but this nature is brought about by (positive) causal factors. It is for this reason that the words "jar" and "difference" mean distinct things; although they may both denote the same object (in a given use), one word may be appropriate and the other not because of the causal situation.

58. (p. 569) Difference presents itself variously to us in our judgments, depending on what sort of object judgment is concerned with. When we judge that a specific cloth is different from a particular jar, difference presents itself merely as such. In cases, like this, of differences among substances, as well as those between qualities and motions, we are acquainted with the distinctive nature of the objects, their difference and also the features that distinguish them. In the case of universals, individuators, and inherence, on the other hand, since these have no universals which constitute their distinctive natures, we can only be acquainted with their difference and the dissimilar features they have.

59. (p. 586) The Buddhist[31] shifts his ground and attacks the Nyāya conception of the whole, composed of but not aggregated from its parts. There are 5 kinds of mutually contradictory features such a whole has, says the Buddhist: (1) a whole can be both apprehended and not apprehended at the same time; (2) it can be both covered and not covered; (3) it can both be shaking and not shaking; (4) it can have and lack a color, e.g., red; (5) it can be in contact and not in contact. But one object cannot have contradictory features, argues the Buddhist. Udayana demurs.

60. (pp. 587-613) Each of these supposed contradictions are generated by supposing that one *part* of the whole can be apprehended, covered, shaking, red, or in contact, while another part of the whole lacks respectively such features. But, says Udayana, this involves no contradiction. It is precisely the Nyāya view that one can apprehend a whole while at the same time apprehending some but not all of its parts. Since the parts are *ex hypothesi*, not the same entities as the whole there is no contradiction. Some familiar theories of Nyāya, e.g., the hypothesis of variegated-color, are set forth.

61. (p. 617) The Buddhist now attacks the atomic theory of Nyāya-Vaiśeṣika. If, he says, atoms can be shown not to exist, then gross objects cannot either, and so the existence of objects is repudiated. His argument against atoms is as follows. In the process of producing wholes atoms are supposed to come into contact with each other. Now contact must be either locus-pervading or non-locus-pervading. But contact between atoms cannot be

locus-pervading, as in that case an atom which has conjoined with another atom cannot have any further contact with any other atom. And atomic contact cannot be non-locus-pervading, since atoms have no parts. Thus there cannot be atoms.

62. (pp. 618-21) Udayana's first line of defense is *tu quoque*. He points out that what the Buddhist has said about atoms can also be said about judgments. A judgment must either fully pervade (i.e., cognize) its object or not. If judgments cognized all the object they could not grasp the features of the object, for one cannot know something as blue if it is also yellow. On the other hand, a judgment cannot be only partially pervasive (cognizant) of its object, for judgments have no parts. Thus judgments do not exist, according to the logic of the Buddhist's argument.

63. (pp. 622-29) Turning to the Buddhist's argument about contact as it applies to atoms, Udayana shows that the Buddhist assumes the opposite of the Nyāya theory in attempting to refute it. He assumes that atoms have parts, since he supposes that contact can only take place among parts of things and he attributes contact to atoms. But this is just mistaken: contact has nothing to do with the possession of parts by the things in contact. Though contact between middle-sized objects produces the effect of a part of one thing screening a part of another, this is not an intrinsic characteristic of contact, so that contact does not have to occur only between middle-sized things, but may also occur between atoms of the smallest size. And furthermore, we could not even explain what possession of middle size consists in if we did not postulate the existence of smaller units, ultimately of atoms. We must postulate atoms, and in order to achieve the simplest explanation, these ultimate atomic constituents must not have middle-sizedness, parts, color, touch, etc.

Another mistaken idea involved in the Buddhist's assumptions is that there is some kind of space between atoms, or between their parts. When two atoms are in contact there is no space between them. Again, for the same reason, logical simplicity, we must assume that atoms are indestructible; destruction of things occurs when their parts disintegrate, but the very logic of this analysis requires that there be ultimate elements which do not disintegrate because they are partless.

64. (p. 631) If the Buddhist, in order to escape Udayana's *tu quoque* argument (section 61), nihilistically denies the existence of judgments as well as objects, he contradicts himself; for since his

case is expressed through judgments, he cannot very well deny their existence!

65. (pp. 636-37) That wholes are single units, not aggregates of their parts, is attested by everyone's experience. This experience is clear, and is not the content of a nonpropositional perception. Indeed, nonpropositional perceptions cannot be held to be clear per se, as the Buddhist seems to think, for then perception as we know it would cease to exist.

66. (pp. 639-48) Possession of large (*mahat*) size is a necessary condition for perception. Atoms cannot be held to have large size, for we know that even the smallest perceptible objects have parts, which in turn must be imperceptible. Once this is realized, it will also be realized that merely aggregating many imperceptible atoms does not produce large size, for if it were so, we should perceive aggregates of atoms spread out indiscriminately over an expanse.

67. (pp. 653-62) A whole is experienced in relation to its parts. This is no reason to question its unity. An object is taken to be single, just as a judgment is taken to be single, if it does not have contradictory features. As this is all based on experience, it cannot be set aside by theory. And in any case there is no other way to account for our fashion of speaking of objects as "single" than to attribute to them the quality *unity*; one might as well attempt to explain our usages of words like "liquid," "hard", "cold," "hot" by appeal to causes other than liquidity, hardness, coldness, and heat.

68. (pp. 662-64) The Buddhist may now modify his claim to this: The existence of a world of external objects is doubtful, since it is difficult to distinguish veridical from nonveridical judgments about those objects. But, says Udayana, the reason is not allowable; judgments cannot be exhaustively classified into veridical and nonveridical in advance of experience. We discover sometimes that a judgment about an object is false, that is, that we had judged incorrectly concerning it, and we thus conclude with regard to that judgment that we had believed true what is in fact false. If judgments wear their truth or falsity on their sleeves, as it were, this experience would never occur. And the Buddhist should not try to explain away the experience of sublation of a judgment as merely verbal—as if the judgment we believed true turned out to be merely ill-formed. We engage in discussions about what to say about objects only because we assume we can refer to the objects, and so they must exist.

69. (p. 666) Furthermore, we cannot explain why we engage in purposive activity with reference to objects on the assumption that there are no external objects; without the hypothesis of such objects there would be no reason to predict acquisitiveness rather than dislike in a given instance, or to expect a person to act purposively toward one (apparent) object rather than another. Thus activity toward or away from an object cannot be explained as due to everything being unreal or to the difficulty of telling truth from falsehood.

70. (pp. 675-76) Judgments, as was said, are determined as to their validity by the nature of things, and thus whether a given judgment is true or false cannot be decided in general but must be decided case by case.

Defense of this position requires, however, a discussion of whether validity is intrinsic or extrinsic. It is not intrinsic. If it is intrinsic, then is this fact made out by the judgment itself or by another judgment? It cannot be apprehended by the judgment itself, as no judgment can apprehend its own validity. Judgments have the generic character of illuminating, but this cannot be the basis for declaring one to be valid in contrast to another. Perception cannot show us that a judgment is intrinsically valid, on the other hand, for there is nothing perceived in a true judgment which is lacking in a false one.

71. (pp. 676-82) The Buddhists, on the other hand, argue that if a judgment is not allowed to be perceptible, then it will not illuminate its object for us. Again, they say, if it takes a second judgment to cognize a first one, there will be an infinite regress and no judgments will ever be cognized.

These arguments require clarification, particularly of the phrase "a judgment is....perceptible." If to perceive a judgment is to formulate that judgment about the object, then the first part of the above Buddhist argument merely comes to saying that if no judgments are allowed to occur no objects will be illuminated—and this can hardly be denied. But nothing regarding the existence of objects follows from this; objects may continue to exist even if no one formulates judgments about them. As for the infinite regress point, there is no difficulty here, for it is just not the case that every judgment needs validation, and in particular, where we are dubious about the validity of a judgment we do not have knowledge of an object.

72. (pp. 687-92) As noted above, the validity of a judgment cannot be established merely on the basis that it illuminates, for all

judgments do that by their very nature. More generally, the intrinsic validity of a judgment cannot be established by apperception (*anuvyavasāya*), as it is not possible to decide concerning a given judgment merely by inspection that it is valid rather than invalid. Nor can we hope to identify validity by inspecting the nature of the instrument used in arriving at a given judgment, for we can make mistakes about this, and think that what is not a valid instrument of knowledge is one. Thus, even if validity pervades the judgment from its first instant, we cannot hope to know that fact except extrinsically, i.e., from a subsequent inferential judgment. But we must discover error, if worldly transactions are to proceed.

The process of extrinsic establishment of the validity of a judgment *J* is this: when *J* first arises, we do not distinguish the features which differentiate its object from other things much like it; it is only at a subsequent stage, called *abhyāsa*,[32] that we doubt whether *J* is true or false, and study the relations between *J* and other judgments whose objects are similar to that of *J*. The study undertaken at this stage forms the basis of another judgment *K*; *K* is based on memories aroused by the impressions produced by knowledge of invariable concomitance, and thus it is *K*, which is about the identifying features of *J*'s object, which validates *J*.

73. (pp. 698-701) The above account applies to perceptual judgments but not generally to inferential ones. For in the case of the judgment that the *hetu* pervades the *pakṣa*, no doubt arises, and yet it is required that this pervasion occur. As an exception, therefore, the determination of the validity of an inference, inasmuch as it depends on this relationship holding, is held to be intrinsic.[33] Udayana says that this is the traditional view of the Nyāya system, elucidated by Vācaspati Miśra.

Likewise, another exception to the rule of extrinsic establishment of validity is allowed in the case of apperception (*anuvyavasāya*) itself, in order to avoid infinite regress.

74. (p. 706) Since what is real and what is unreal are distinct from each other, it must not be imagined that there is no difference between the dream and waking states. If there is agreement noticed between objects visualized in a dream and those experienced in the waking state, this is purely accidental. All experiences had during dreams are sublated with regard to their connections with the agent and his actions, space and time, etc., upon waking up. On the other hand, during the waking state sublation takes place only for some objects and their connections form no consistent pattern.

75. (p. 708) Hence the external world is real. As the universe is of relatively insipid interest, those like the (Advaita) Vedāntins, who seek release from it, have ignored it.[34] The Nyāya school shows earnestness in safeguarding the real world from being improperly understood, for if the world is treated with indifference there will be room for fallacious reasoning, and epistemological confusions are likely to result. In such a situation, even one who is prudent and seeks the aid of flawless reasoning may not be in a position to understand the truth. Hence the eagerness of the Nyāya school in maintaining the real nature of the objective world.

GUṆAGUṆIBHEDABHAṄGA

76. (p. 710) According to Buddhist idealism, judgments are not qualities of the self. The self and (its) judgments are not different from each other. Thus the Buddhist prefers to speak of judgments only and holds the self not to exist in distinction from them.

The Nyāya school criticizes this position by showing that there is correlation (*pratisaṃdhāna*) between seeing and touching, which proves that the object of these different acts is one and the same. Similarly, two distinct judgments may have the same object. Generally, the point is that an object is not identical with its qualities (*guṇaguṇibheda*).

Correlation might be construed as showing one or another of a number of things about the object(s) in question. It might show (1) that each of the two acts relates to a separate object, or (2) that the object which both relate to is a group, or (3) that the object which both relate to is something different from the two acts, or (4) that the object is a form or conceptual construct which is not in reality the object which the acts relate to, or (5) that the object is unreal.

77. (p. 712) (1) The first alternative is untenable. We see and touch the same object. If one tries to hold that we see only sights and touch only tactile qualities, this contradicts our clear experience that we have commerce with one and the same thing through different sensations. If visual and tactile objects were really distinct, then the only way this fact of correlation could be accounted for would be by supposing that the two objects are somehow identical, so that we can see the tactile one and feel the visual one. But then a blind man could apprehend colors with his fingers! Again, under these circumstances we could never establish the "real" nature of the two objects and discriminate the visual one from the tactual one.

78. (pp. 714-15) (2) This alternative differs from the previous one in that now the two objects of (1) are allowed to form an aggregate or group, with the two acts allowed to relate to this group. But Udayana points out that this either grants the point at issue or is untenable for the same reasons as (1). Either the material causes of the two acts are located in the same place, in which case what is referred to here as a "group" is indistinguishable from the objects in which the Naiyāyika believes, or else the two objects are located in different places, in which case the arguments of the previous paragraph apply.

79. (p. 719) (3) The third alternative is the one the Naiyāyika defends.

80. (pp. 719-20) (4) Two forms of this alternative are identified. (a) According to the first, the unreality of the object is made out by the proponents of idealism using the standard idealistic arguments of the Buddhist sort reviewed earlier. But, says Udayana, these arguments, if they prove anything, prove far too much, for they purport to show that not only are there no real objects but that there are no external qualities either. In this case there is no question of anything like what is referred to here as "correlation". (b) In its second version, the analogy of seeing two moons in rippling water is appealed to; just as we think we see two moons looking in the water, whereas there is really one moon and it is not located in the place either of the apparent moons occupies, just so the Naiyāyika's "object" is constructed conceptually and differs from the real object related to our actions and judgments, which is located elsewhere and has a different nature. Udayana rejects this on the ground that on such a basis we cannot explain successful purposeful activity directed toward the "apparent" object. If the objector retorts that purposeful activity succeeds because of the actuality of the qualities, despite the illusoriness of the object which seems to have them, Udayana answers that the presence of qualities is not necessary to purposeful activity, so this cannot be a proper explanation.

81. (p. 721) (5) The proponent of the fifth position presumably believes qualities and actions, as well as the objects they are held to be related to, are all unreal. Thus the issue over correlation just does not arise at all for him.

82. (pp. 722-30) *Objection*: We always cognize objects with qualities, and this is sufficient to show that they are nondifferent, that is, that there is no distinction between objects and their qualities. *Answer*: We do not always cognize objects with their qualities; e.g., in jaundice we cognize a shell without its actual white color.

Thus the shell and the white color must be different. Secondly, the fact that two things are always cognized together is not sufficient to show that they are nondifferent. We always cognize the color of the jar and the color of the light which illuminates it together, but this by no means shows the two colors are the same. Thirdly, if an object is to be held identical with its qualities, then the difference between distinct and indistinct presentations of it, because one is nearer or farther away from it, cannot be explained. The same object cannot have two forms to present to one cognizer. And one cannot say that the object presented distinctly is different from the one presented indistinctly, since both are found to reside in the same place and to be affected by the same causal factors, etc.

83. (p. 736) If in spite of all this the Buddhist is not convinced, then he can as well assume that everyone knows everything at all times.

ANUPALAMBHA

84. (p. 739) The opponent seeks to argue that the self does not exist, since no one ever apprehends it. Even if it were the case that no one apprehends the self, this would not be a ground for denying its existence, but at best a basis for doubt. After all, there are other things which people do not apprehend which nevertheless exist. Their existence, like that of the self, then have to be established by arguments.

ESTABLISHMENT OF THE SELF

85. (pp. 743-46) However, we do perceive the self. Living beings entertain perceptual judgments of a nonpropositional sort about themselves. The Buddhist must admit that these selves exist, since they are committed to admitting that the objects of nonpropositional judgments are real. For example, if a Buddhist should argue that our idea of our self is produced by beginningless impressions and thus its object is unreal, they will be forced by parity of reasoning to admit that perceptions of colors are equally without real objects, and then no reliance can be placed on nonpropositional perception as giving us insight into reality. Therefore, we must reject the idea that impressions—traces—alone produce our judgments about our selves. These judgments must be caused by their objects.

It cannot be held that the judgments in question are propositional and nonperceptual, that judgments about the self are derived from inference or verbal authority. Just as the opponent admits that a propositional judgment about *blue* presupposes nonpropositional judgments about *blue*, since colors are the objects of perception, so he must also admit that propositional judgments about the self presuppose nonpropositional ones about the self, since the self is known through perception. This is the case even if judgments about the self are somehow erroneous perceptions, since even erroneous perceptual judgments must be about something real given through perception. And if the Buddhist rules this all out on the ground that there are no real selves external to our judgments, the same applies to all judgments and we are back in an earlier discussion.

86. (pp. 747-50) Arguments are proffered against holding that something other than the self is the real object of the perceptual judgments in question; candidates like body, sense, and *buddhi* are discussed and dismissed. The question is also raised as to whether the knowing self cannot be identifed as the storehouse consciousness (*ālayavijñāna*). Udayana shows that if this suggestion is understood in the natural fashion, the arguments for it equally well establish the Nyāya view of a perduring self.

87. (pp. 752-57) Correlation is what supports the eternal and stable nature of the self. "Correlation" does not merely mean recognition. What is meant is the continuity among the judgments which arise one after another, and the identity of their locus. The defenders of momentariness cannot avail themselves of this relationship of correlation, for they must construe one judgment in a series as the cause of the next only in the sense that the one precedes the other; however, this relation might well exist between, say, the judgments of a teacher and his pupil—it does not suffice to explain the fact that all the judgments in the series "belong" to one knower.

The Buddhist is made to search for a way of explaining the relationships among the judgments in the stream of consciousness corresponding to a person's experiences. The judgments cannot be held to be identical (nondifferent), as they obviously are different in that they are about different things. Again, the Buddhist might say that indeed the apparent difference between one stream of consciousness and another is due to failure to grasp their actual identity. But, says Udayana, this contradicts our experience, and also runs counter to the commonly accepted interpretation of *karma* according to which one person reaps the rewards of his activities due to

impressions produced in *his* self. If what the Buddhist holds were true, the son could recollect what has been experienced by his father.

88. (pp. 760-62) *Buddhist*:[35] We must distinguish between two kinds of causal relationship which connect preceding with succeeding moments in the stream of consciousness (*saṃtāna*). One kind relates moments of the same kind, the other relates moments of different kinds. In the former case we can say that the first judgment is the material cause of its successor, since they are of the same form. In the latter case, too, the earlier judgment is the cause, but here it is the occasion for the change in the stream from a judgment of the one kind to one of the other.

Answer: This reasoning is defective. For one thing, relations of the kind the Buddhist believes in are not necessarily causal. Take, for example, the relation between the cold fuel or coal and the live charcoal. The former is not the cause of the latter; rather the charcoal is a condition assumed by the cold fuel.

Besides, the Buddhist, despite what he has just said, does not allow that a cause and its effect may belong to the same kind. Nor should he: to say that the material cause is of the same kind as its effect is to commit the fallacy of self-residence.

89. (p. 764) The notion of a series of causes and their effects whose stages are unchangingly the same is untenable, and if insisted upon will lead to the abandonment of the causal principle and the admission of uncaused events. Such an admission will have the most untoward consequences; there will be no incentive for activity, since things will occur accidentally and at random.

90. (pp. 767-68) If the Buddhist seeks to fortify the causal principle by invoking the notion of a *kurvadrūpa*, a kind of special causal entity which operates to produce from one moment of a kind a succeeding moment of the same, or different, kind, Udayana remarks that if this were the case smoke could be produced without fire, providing there were an appropriate *kurvadrūpa* around. But this will nullify the inference from smoke to fire. Therefore the *kurvadrūpa* idea should be abandoned and the Nyāya account accepted, which is that an effect must belong to a different kind from its cause, due to the variety of the accessories which operate in the causal nexus.

91. (p. 772) The self is also considered to be one of the accessories. These accessories must be multifarious and they differ among themselves; otherwise the variety of the effects could not be explained. But these accessories must have some special feature

which makes them all accessories. This feature cannot merely be the possession of a causal efficacy to help produce something at a given moment, for an effect of the same kind may well be produced at a different moment. Again, the special feature of an accessory cannot belong to a certain kind of thing generically, as then it would help to produce effects beyond its actual scope. E.g., as mentioned above, if judgments generically were accessories, then the teacher's judgments might be the causes of the pupil's judgments.[36] Likewise, the feature cannot be identified as belonging to everything similar to some one thing which is found to have the feature, for then Maitra could recollect what was perceived by Caitra.[37] Thus the accessory for a particular effect must be held to have a special feature which relates to its role in producing *that* effect and no other.

92. (p. 774) The establishment of the proper account of causality demonstrates in turn that the material cause of judgments is the self, not previous judgments in a series, since they are impermanent.

93. (pp. 779-80) Udayana returns to a further discussion of the topic of correlation (cf. sections 76ff). The Buddhist might argue that the apparent correlation between the acts of seeing and touching the same thing is due to our failure to apprehend the differences among the items contained in the storehouse consciousness (*ālayavijñāna*). If this were true it would imply that consciousness of the ego is different from the judgments which manifest themselves in the *pravṛttivijñāna* (the third tier in the Yogācāra three-tiered system); thus the idea would be that there are two different kinds of judgments about the ego. But this cannot be admitted, for there is no experience of two independent series of judgments of that sort. Even if there were two such series of judgments there would be no correlation between them, since they are not related as cause and effect. And if this requirement is not respected, one might as well say that the judgments of Caitra and Maitra about something are correlated, which is evidently not the case.

If the Buddhist says that the storehouse consciousness is the cause of the *pravṛttivijñāna*, and that we know this because the latter does not cause anything, the answer is no. The storehouse consciousness cannot be the cause in the necessary sense, for what is required is a material cause, something which persists as the locus of change. But the Buddhist storehouse consciousness contains evanescent judgments. Suppose one such judgment is a cause; when it is removed, there will be a breakdown in the whole stream of consciousness, and the last moments during which no effect is produced

will have to be taken as nonexistent. But the same reasoning can be applied to each previous judgment one by one, resulting in the nonexistence of those moments also. So the result is that there will be no world. Thus we must postulate a persisting cause, not a series of judgments.

94. (pp. 787-90) The Buddhist may reply that we have not properly understood his view. His view is that the ego-consciousness is the form of many judgments all of which have only occasional existence when they appear in the *pravṛttivijñāna*. Thus, nonapprehension of difference is a natural outcome. Udayana asks: what is responsible for the nonapprehension of difference? Is it the mere cognition of the form "I"? Then the variations in the judgments "I knew," "I know," and "I shall know" could not be justified unless the difference between them is explained. What is this difference due to? If it is said that it is due to the *pravṛttivijñāna*, this will not do, since it is precisely the differences among judgments in the *pravṛttivijñāna* which are to be explained, and one cannot appeal to those differences in explaining them. Well, then, the differences must be due to the objects of the judgments. What are these objects? Such an object cannot be the form of the judgment itself, as we have just seen. It cannot be some object other than the self, as the Buddhist does not admit any such objects. Yet it cannot be unreal, for judgments of the form "I. . . ." have been proved to have a real thing for their object.

95. (p. 791) Thus the self is proved through perception on the strength of correlation. Next, Udayana shows that it is the same self which both perceives and remembers. We experience something at time t, and remember it much later, at $t+n$. But this is not the only feature of memory; in addition, a memory is *of* the object we experienced at t, and thus the object is partly responsible for the production of the memory.

96. (p. 794) In addition, the experience at t and the memory of it at $t+n$ are, aside from the impact of the object upon them, without a form (*nirākāra*). Otherwise the perception at t could not be identified as the same (kind of) judgment as is the memory. There are plenty of instances where causes produce effects which differ markedly from the features of their causes. Such are cases, due to cooking (*pāka*), such as the birth of pigeons of one color from parents of a different color as a result of the parents' drinkg in the juice of rose-apples and milk, the change from sour to sweet taste on the part of the myrobalan when it has been soaked in milk, the cotton seed's change from white to red color when it is soaked in

lac juice. On the other hand, the crystal, even though it is kept near a red rose, retains its colorlessness, though it appears red because it transmits the red of the rose. Similarly, judgments have no form of their own, and transmit the form of their objects.

97. (pp. 797-801) Now since judgments are shown to be formless, there can be no judgments which show forth indistinct objects. All judgments must show forth their objects distinctly; if a judgment is indistinct, it cannot have an object. If there could be a judgment which has an indistinctly presented object, then all judgments could have any object whatever.

Thus, to explain how the memory, at $t+n$, can have as its object the thing perceived at t the hypothesis of an impression or trace must be invoked. This impression must be of continuing force from t to $t+n$, and since it must have a persisting locus, the self is thus proved to continue through time.

98. (pp. 808-09) The body, senses, internal organ, etc., are shown not to be the same as the self. The characteristic features of selves are reviewed.

99. (p. 812) The size of the self cannot be the smallest size, for in that case the size of the internal organ cannot be established to be of that size. The reason is that sequence in the workings of the internal organ cannot be explained except through the hypothesis that there is a sequence in the contacts of the self with the internal organ.

100. (pp. 814-15) The Buddhist changes his attack. Even if the self does exist, he says, we should deny it, for people who are convinced of the existence of their self have a liking for those who help it and a disliking for those who do harm to it. Since attachment and hatred are the root causes of bondage, one can only get out of bondage by denying the existence of the self.

Udayana replies that this argument is unreasonable, for someone who does not admit the existence of his self cannot even have a desire to get released from bondage. As long as one acts one must be earnestly desirous of pleasure. When this earnestness ceases, the intended result is not achieved. The denial of the self would also strengthen atheism, in the trail of which would follow the evils attendant upon strong attachment for the objects of the world.

101. (p. 819) There are two sources of justification for believing in the existence of selves from inference and from the authority of the Vedas.

The inferences are of the form of inference by elimination. The body, etc., cannot be the self, for the self must be aloof (*kaivalya*);

otherwise there would be no cause for worldly existence and no way of gaining release from it. Bondage and release as we know them are only possible if we postulate that it is the body which is the condition which gives rise to attachment, and the throwing off of which gives release. When release occurs the self is cut off from all such conditions, and it is no longer subject to the dictates of scriptural ordainment and prohibition, which operate solely on account of birth, caste, age, wealth, and dispositional tendencies. It is when we take the not-self for the self that we become attached to worldly existence, and it is the removal of this erroneous belief which constitutes the cause of release. The knowledge of reality which removes the erroneous belief is produced by hearing, thinking, and meditating on the real nature of things; once this knowledge has been arrived at, the remaining results accumulated from past good and bad deeds get destroyed by enjoying their fruits.

ESTABLISHMENT OF GOD AND OF THE AUTHORITY OF THE VEDAS

102. (pp. 823-24) The authority of the Vedas (mentioned in paragraph 1 of section 101 as one of the sources of justification of selves) comes from such passages as Chāndogya Upaniṣad 8.12.1, which speaks of "living without the body."[38] If someone argues that the Vedas are invalid since they contain inconsistent pronouncements, he is wrong; different passages which seem to contradict one another actually have different purposes and are to be interpreted so that they do not conflict. For example, passages which speak of the unreal nature of the world mean that the self, which does not have any relation to the world, is to be known by those who seek release from the world. The passages which are monistic in tone mean that knowledge of the self alone is the means to salvation. Those which contain repetitions show that the truth is difficult to comprehend and needs repeating. Those which deny the existence of the mind lay emphasis upon the need to give up any resolutions regarding external objects. Bliss is treated in some passages which mean that the self alone is to be studied in order to get final release. Matter is dealt with in some passages which mean that insentient matter takes on the coloring of sentience. This forms the basis for the Sāṃkhya school of thought, and of others as well. Udayana defends this way of interpreting the Vedas; if it were not thus, both Jaimini and Kapila could not be held to be proficient interpreters of scripture.

103. (pp. 825-50) The Vedas are valid, being the utterances

of a trustworthy person whose existence is to be inferred as the creator of the universe. The universe is a product, the agent of which must be an omniscient person, who is God. Counterarguments on the basis of God's lack of a body are rejected. Agency is held to involve volition, which in turn requires knowledge and desire concerning the object to be created. God's knowledge includes all the knowables within its scope; it is eternal, as are His will and desire. Since God needs no body to satisfy the requirements of agency, whereas ordinary human agents do require a body, the above counterarguments come to nought. Since God has direct control over everything, unlike ordinary mortal agents, He needs no body to create the world.

104. (pp. 860-76) The materials that are employed in the production of an effect are all inert and do not have the capacity to work by themselves in producing an effect. The body of an agent is also insentient and therefore cannot by itself make use of these materials to produce the effect. Atoms, which are the primary causes out of which the universe of inert matter is produced, are also inert. To create the world out of them, the agent must have knowledge of them and full control over them. This agency can apply only to an omniscient person, who can be none other than God.

105. (pp. 881-82) Ordinary persons need a body also to utter words in order to convey their thoughts. But God, again, has no need of a body for this purpose either. Since He has direct control over everything, He does not depend on a medium for expressing Himself as ordinary mortals do.

106. (pp. 883-85) The Vedas and Āyurvedas are His compositions, and so authentic. That these are utterances of an omniscient person is supported by their admission as authoritative by the elite (*mahājana*).[39] These "elite" practice what is taught in the Vedas, safeguard its text through the system of grammar, and accept the authority of the Āyurveda in regard to their activities.

107. (pp.896-900) *Objection*: The Vedas do not need God's authorship, since they are eternal; thus there is no need for their composition at all. *Answer*: No, they are noneternal, since the syllables which constitute the sentences in the Vedas are not eternal. Degeneration is found in the abilities and capacities of all men. This applies also to their improving in ability for studying the Vedas. Consequently, branches of the Vedas get lost, resulting in the cessation of the performance of the sacred rites. Thus the Vedas are bound to get destroyed with the passage of time.[40] In order that the selves which have not yet been released and have not reaped

the rewards of their deeds before disolution be given the chance to do so in each new era, the world requires to be created anew and people have to be taught at that time what they should do and what they should avoid. This is done through the Vedas. God therefore must be taken to create the world and to utter the Vedas at that time.

108. (pp. 903-4) At the time of creation Manu and others accept the authority of the Vedas in order that the tradition may continue. Or they may be taken to believe in the authenticity of the Vedas as one believes in the objects of experience having awakened after slept. They infer the creator to be omniscient by observing the creation of beings which are of varying standards; they also infer God's nondeception on the basis that He is (like a) father. Or God may be taken to create thousands of bodies in order to preach the traditions and make the elite of the people admit the Vedas as authority. This is just like the dancing master who trains his pupils by his dance display.

109. (p. 909) Some people do not have faith in the authority of the Vedas and have embraced Buddhism because of certain attractive features it is thought to have.[41] Dharmakīrti, Prajñākara (gupta), Dīpaṃkara, and others are cited in this connection.

FINAL RELEASE

110. (p. 915) Final release consists in the final cessation of the self's miseries. This is brought about by the destruction of all the causes that have given rise to worldly existence.

111. (p. 935) One should realize, through listening, the nature of the self, then get propositional knowledge about it through ratiocination, and then meditate upon it as distinct and separated from the other objects of knowledge. During this stage the self should be possessed of faith in the Vedas, have control of its internal organ and sense organs, and practice detachment. Such a self should work for the destruction of worldly bondage through yogic practices such as those ordained by Patañjali in the *Yogasūtras*.[42]

112. While meditating upon the self there are stages of realization through which one has to pass. Karma Mīmāṃsā, Materialism, the Vedānta of Bhāskara, idealistic Buddhism, the Vedānta system in general, nihilistic Buddhism, Sāṃkhya, the Śākta cult, the Advaita system, and the final stage which Udayana calls "final Vedānta," equating it with the Nyāya school, are shown to be the

stages, each succeeding stage being superior to the previous one. During these meditations, all the impressions in the self are destroyed. The self, which is aloof, is then not determinable. There is no stage to reach beyond this. This stage will also become extinct by itself. This is the state of final release as recognized by the Nyāya system.[43]

CONCLUSION

113. (p. 947) In conclusion the author says that he would not be delighted by praise which scholars might want to confer on him for the writing of this work.

There is no value to be attached to the blind man's praising of artist. The people should rather attempt to censure his work by pointing out its defects, knowledge of which he would willingly welcome.[44]

4. NYĀYAKUSUMĀNJALI

Summary by Karl H. Potter and Sibajiban Bhattacharya

This work is Udayana's best known contribution to the literature. Of all his works it is the only one which has been translated, although the translation is only partial. Ravitirtha has translated Books One and Two, both the *kārikās* and the prose passages.[45] E. B. Cowell and Mahesa Candra Nyayaratna long ago published a translation of all the *kārikās*, but did not translate the prose passages, although they did translate Haridāsa Nyāyālaṃkāra's commentary.[46] In the summary which follows, "E" references in Books One to Four refer to the Bibliotheca Indica edition by M. Candrakanta Tarkalaṃkara (B2687). In Book Five the "E" references are to N. C. Vedantatirtha's edition (B2699). "T" references throughout Books One and Two and the numbering of the passages correspond to Ravitirtha's translation (B2694); for Books Three to Five these references are the Cowell and Nyayaratna's translation of the *kārikas*. (B2684).

The summary of Books One to Four has been prepared by Karl H. Potter; that of Book Five is the work of Sibajiban Bhattacharya.

BOOK ONE

1. *Introductory Section, including kārikā* 1 (E1; T1). Udayana begins his treatise with an invocation cleverly phrased to take advantage of the title of the work. An *añjali* suggests the characteristic Hindu gesture of worship, hands cupped together in supplication. As is frequently done, flowers (*kusuma*) are brought to the altar and offered to the god with this gesture. Udayana says that here his "flowers" are his arguments (*nyāya*).

2. (*Kārikā* 2. E6; T1) The supreme self is to be explained, that supreme Self whose worship is taken by wise men to be the path to heaven and to liberation (*apavarga*).

3. (Including *kārikā* 3. E12-19; T1-3) How can one doubt the existence of God, seeing that just about everyone admits His existence as an aid to gaining their various aims? The Upanishadists worship him as one whose nature is pure consciousness, the Sāṃkhyas as the first knower (*ādividvān*), the Yoga followers of Patañjali as untouched by faults, actions and their fruits, a Being who shows men the path by promulgating tradition while inhabiting a body of transformations (*nirmāṇakāya*); the (Mahā) Pāśupatas worship him as independent (*svatantra*), untainted even by what contradicts worldly and scriptural laws; the Śaivas call him Śiva; the Vaiṣṇavas call him Puruṣottama; the Paurāṇikas worship him as the great Father (*pitāmaha*); the sacrificial cults as sacrificer; the Buddhists as omniscient; the Digambara (Jains) as uncovered (*nirāvaraṇa*);[47] the Mīmāṃsakas as He who is to be worshipped; the Cārvākas as one who is proved through worldly experience; the Naiyāyikas as He who is about to be spoken of here. Even the artisans worship him as Viśvakarman, the Creator.

There can be no question of His existence, therefore. Nevertheless, in accordance with the scriptural passage which exhorts us to think and meditate on, as well as hear, the truth, this inquiry is being undertaken as a kind of worship itself, as a kind of yoga.

4-5 (Including *kārikā* 4. E27-32; T3) In this work 5 arguments against God's existence will be considered. They are these. God does not exist, (1) because there is no supernatural (*alaukika*) instrument with respect to a world beyond this one; (2) because of the possibility that there are other instruments for getting to the world beyond which do not presuppose a belief in God's existence; (3) because there are valid means of knowing the nonexistence of God; (4) because even if God does exist one cannot rely on Him as a valid instrument; and (5) because there is no valid means of proving His existence.

First Argument. Four Rebuttals Stated. There is a supernatural cause, (a) because of the fact of dependence, (b) because of beginninglessness, (c) because there is variety among the things which occur, and (d) because of the law that the enjoyment of the fruits of an action comes to its agent and not to something else.

6. (*First Rebuttal.* Including *kārikā* 5, E33-37; T3) The argument of the opponent (to the effect that there is no supernatural cause of the sort argued for above) cannot be meant to deny that there is some cause of the world beyond, nor can it mean to deny that attainment of the next world is produced. Furthermore, the attainment of the next world cannot be self-caused or incomprehensible, since production of effects operates within regulated (i.e., rule-governed) limits.

7. (E42-43; T3-4) Suppose the opponent means to deny that there is any cause of the coming to be of things. Then, in the absence of any specific reason for something to come to be at any particular time, everything will always be coming to be. Or suppose the opponent means to deny the coming to be of anything prior (to the coming to be of the effect); then nothing will ever come to be later, since there is no specific occasion for it to do so. Nor can things be self-caused, since a thing cannot both originate at a certain time and yet exist prior to that time, and the causal relation involves temporal succession. Finally, if the cause is incomprehensible or *ex nihilo* then the effect may exist earlier than it does, and again it will become eternal (*sadātana*).

8-9. (E44-45; T4) *Opponent* : We do not mean any of these things. What we mean is that a thing's nature is just to exist at a place and during some stretch of time, and it is thus not dependent on a cause for its occurrence. *Answer* : Unless there is something to limit the thing's occurrence, and unless this limit (*avadhi*) operates in a regular fashion (*niyata*), there is no reason for the thing not to exist always. For existing at only a limited time is just to be somewhere at a given time and not before. The limit which is thus necessary is what is called the cause.

10. (E45-46 ; T4-5) *Opponent* : Then the limit you speak of must be the prior absence of the thing. *Answer* : No, the limit must be more complex than that. For if prior absence of *x* were the only cause of *x*, this would not limit *x*'s coming to be to occurrence at a specific time, since *x* might exist prior to that absence. Therefore, the prior absence of *x* must itself be dependent on something else, and only together with that something else can it produce *x*. In fact,

we can only identify the prior absence by reference to the other positive factors.

11. (E47-48; T5) *Opponent* : All right, there is a limit, but the limit is not something the product depends on. That is what we mean by saying the thing comes to be of its own nature. *Answer* : What do you mean by saying the product does not depend on the limit ? Is it that the limit is not necessary ? Surely it *is* necessary, since in the absence of any regularity of succession a donkey might be the limit of smoke as easily as fire. Or is it that though the relation between limit and effect is necessary, still it is not effective in producing the effect ? But what further do you want ? Causation just means regular connection between something prior to the effect and the appearance of that effect.

12-13. (E48-51; T5) *Opponent* : Well, in the case of *ākāśa* one does not need to ask why it occurs everywhere, since it is not produced by anything else; likewise, we argue, with regard to other things as well. *Answer*: No, for *ākāśa's* nature (*svabhāva*) is not everywhere, but only in *ākāśa* itself. The nature of one thing cannot belong to another thing. So the nature of things which are eternal cannot be likened to the nature of things which occur only sometimes. And the differentia of the latter kind of nature is that such an occasional existent must depend on limits, as has been said.

(14-15. *Second Rebuttal.* E52-53; T6) The opponent now decides to agree with Udayana that there are limits which demarcate the period of the existence of those positive existents whose limits can be observed. But for absences one or both the limits are lacking, and, says the opponent, it is likewise with some positive things — they also lack limits, since we cannot perceive any limits. So there are, after all, things, including positive ones, which need no cause to explain their occurrence.

16. (Including *kārikā* 6. E53-54; T6) To the above argument Udayana replies: No, because of beginninglessness. That is: the series of causes and effect is beginningless, but *it* is not the determining factor in the different products, nor does it have a single causal-efficacy (*śakti*) in and of itself. Again, one must provide the limiting causal factors which determine positive and negative concomitance (*anvaya-vyatireka*) between cause and effect.

17. (E54-55; T6) Positive things must have a limit, a beginning point in time; otherwise a jar would be eternal, for its limit would be merely its prior absence.

18. (E55-56;T6-7) *Opponent*: All right, let's assume that the very nature of a particular jar is to be produced on a particular

day. *Answer* : But that day may occur before it does, unless we assume that *it* has a cause other than mere prior absence.

19. (E56-58; T7) Now the opponent attacks Udayana's idea of causal regularity in a different way. He says : Very well, let's admit that there is regularity, but I insist that it relates individual things only, and does not hold in virtue of the things' belonging to some natural kind in virtue of their sharing a universal (*jāti*). *Answer*: But the regularity must hold between universals and not merely between individuals (*vyakti*). For if it is not so, the very identification of an individual will be rendered impossible. For if *x*, though produced by *y*, can nevertheless belong to the class of things-not-produced-by-*y*, anything can belong to any class, i.e., have any identifying characteristics whatsoever.

20-21. (E58; T7-8) *Opponent* : But if the regularity is among universals, how is it that there can be plurality of causes — e.g., how is it that fire can be produced either from grass, by a drill, or by (focusing a) lens? Surely this means that these several individuals possess the same causal efficacy? *Answer* : No, there can be no genuine plurality of causes, since to admit such would undermine causal inferences generally, as argued in the previous paragraph.

22-24. (E58-61; T8) *Opponent*: The regularity, then, should be taken to be only between qualities that people can observe. *Answer* : No, for causality is not the sort of thing one can observe. *Opponent* : Then the regularity may be admitted to hold with respect to some causal elements (specifically, the inherence cause) but is not required for the other kinds of cause (the instrumental and noninherence causes). *Answer* : No, for causality is a relation holding between the whole causal aggregate (*sāmagrī*) and its effect, not any partial set of causal factors and the effect.

25. (E66-67; T8) This constitutes an effective refutation of *apohavāda*, since causality has been shown to be a relation between universals and thus cannot be satisfactorily explained on the *apohavādin's* assumptions.

26-27. (E71-72; T8-9) However, we can explain the appearance of plurality of causes, even though it is not genuine. Just as grass, drill, and lens belong to different classes since characterized by different universals, so also do the kinds of fire which result from each. Everyone knows that the lamp-fire which lights up a room, a camp-fire, and a cow-dung fire, though they are all fires, are nevertheless different.

28-29. (E73-81; T9-10) One does not have to accept the account in the previous paragraph. It is sufficient for causal inferences to

infer the cause in general from the effect in general, viz., fire.

Opponent : Not so. There may be some undetected characteristic in smoke which makes it causally dependent on fire. If so, one cannot infer fire in general from smoke in general, nor therefore absence of smoke from absence of fire. And as a result, since the identification of things depends on the identification of their results, we cannot use inference in establishing causal relations.

Answer : If you are right, this effectively refutes the Buddhist, who thinks that causes are particular universals which are not known through perception. But it fails to affect us, since all we affirm is that the positive and negative concomitance between two universals is sufficient to show a causal relation between them. This is still true when there are inferior universals (*avāntarajāti*) under the ones showing the concomitance.

30. (E81-82; T10) What is the causal aggregate for fire-in-general, then? Wind (air) is the instrumental cause; the contact between the particles of fire is the noninherence cause, and those particles are the inherence cause.

31-32. (*Third Rebuttal*, including *kārikā* 7. E83-84; T10-11) *Opponent* : Very well, then, we need to postulate one single cause for all effects; we can dismiss the idea of particular kinds of causes. For we find that one thing can produce all sorts of different effects — e.g., a lamp removes darkness, burns down its wick, and illuminates various colors. *Answer* : No, because the effects are different. If there is only one cause for everything, there could be no sequence (*krama*) of effects, and no difference among the effects. Nor can you appeal to some causal efficacy, since such a thing is not different from the single cause you have postulated. And the very nature (*svabhāva*) of that one cause cannot very well be changed.

33-34. (E85-86; T11) All the different effects come into existence in a sequence. But an unchanging cause cannot produce effects in sequence — at least it cannot without accessory causes. But the opponent admits no accessory cause.

38-39. (Including *kārikā* 8. E88; T12) *Opponent* : All right, we will admit that there is a causal aggregate, for we can observe its features. Why do you go on to postulate something *unseen* (*apūrva*)? *Answer* : All activity cannot be fruitless, nor can it have as its only fruit pain, nor can it have the acquisition of seen things as its fruit. This will be true even if the activity is fraudulent.

40-42. (E88-90; T12-13) Even a single person who believes his actions are without result or that their result is suffering will not perform them, so how much more the whole of mankind ! *Opponent*:

People act for profit, for worship, and for fame. *Answer* : No, for something else determines what constitutes profit, fame, and worship. *Opponent* : Yes; it is the attachment of men to other men who give them favors, etc., which determines how people act. *Answer* : No, prosperity is not produced by such attachment, since gifts and favors are dispensed according to political whim or for the amusement of gamesters.

43-47. (E90-93; T13-15) *Opponent* : Ascetics are frauds. They really want the worldly profit others do. *Answer* : No, for they show no interest in ordinary sources of profit, and because if what they do gave pleasure we would find other sorts of people doing it too.

The suggestion that religious activities are done merely because they are enjoined by scriptures is rejected as a Prābhākara's and not Nyāya-Vaiśeṣika's. *Opponent* : Well, we are all victimized by our parents into thinking we ought to act in a religious manner. *Answer* : No, for our parents act that way too, and dupes do not dupe themselves.

Opponent : Religion was initially perpetrated by some one man in ancient times who out of interest in duping others indulged in ascetic practices. *Answer*: The pleasure of duping can hardly be compared to the pain involved in ascetic excercises !

48-49. (Including *kārikā* 9. E64; T15) *Opponent* : Good ! You have discovered the causes of that variety in the effects for which we were looking earlier. These causes are precisely the religious activities we are speaking of now. Thus we need not involve ourselves in talk about "unseen" results. *Answer* : No, for men seek what will happen at a subsequent time, and the "unseen" is needed to link religious activities with their results. This "unseen" factor must be in the selves of religious agents, and not just properties of the objects experienced, for those objects are the same for everybody and, therefore, none of their attributes can account for the unique retributive experiences of the individual.

51-54. (E95-101; T15-17) *Objection* : Weight is a supersensible property of objects. Likewise, there must be supersensible causal efficacies in things, for otherwise how can one explain how causes fail to function in the presence of counteracting agents (*pratibandhaka*)? E.g., the same causal factors which produce fire on other occasions fail to do so when a charm is uttered, but they do operate when the charm is not uttered. Now you might say that the absence of charm is one of the causal factors, but this will not do : an absence cannot be a causal factor, since it is nothing. Furthermore, if there is a neutralizing agent present the charm will not work even though it is uttered,

so that even so the absence of charm is not a causal factor. Moreover, absences cannot be causes, for if they were the law of regularity of causes would break down, since there are prior absences, posterior absences, etc., and especially since there are mutual absences which do not affect the causal process.

55. (Including *kārikā* 10, E101; T17) The answer to this is that absence can be a causal factor, just as it may also be an effect. So counteraction defeats the work of the causal aggregate.

56-58. (E101-03; T17-18) As for absence being "nothing," as the opponent claims, this depends on the point of view. If an absence is "nothing" from the standpoint of an affirmative injunction, then a positive entity is a "nothing" from the standpoint of a proscription.

59-60. (E103-10; T18-19) As for the argument (in sections 51-54) about the neutralizing agent, by what right does the objector assume that if *x* neutralizes the charm *v*, *y* remains among the causal factors nonetheless? If *x* destroys *y*, then *y*'s absence arises, and we cannot at the same time assume that there is "absence of the charm's absence."

61-64. (E110-12; T19-20) The fact of there being various kinds of absences does not matter to the argument, though of course one should not confuse mutual absences with relational absences (e.g., prior and posterior absences). We may even admit that there is no universal *absenceness* and that the classification of absence is conventional.

65-73. (E112-16; T20-22) Further discussion of counteraction and the counteracting agent establishing the conclusion that there is no inherent causal efficacy in things.

74-82. (E120-26; T23-25) *Opponent* : Nevertheless, there may be *acquired* causal efficacy, as we do in fact find when by sprinkling some grains and uttering a sacred formula we purify the grains; then the grains produce effects through this acquired causal efficacy, even though the utterance of the formula and the sprinkling took place long ago. And further, this explains what would otherwise be hard to explain, namely that things whose ultimate constituents — atoms — are undifferentiated into classes should in combination produce effects in agriculture of specific kinds.

83. (Including *kārikā* 11, E126-27; T25) *Answer* : Purification is of the agent who does the sprinkling, not of the grains sprinkled. As for the causality of the ultimate atoms, they take on attributes according to their contact, e.g., with heat in the process called "cooking."

84-90. (E128-33; T25-27) *Objection* : If purification is only of the agent and not of the grains, how is it that the grains produce concomitant effects? And why should not some unpurified grains do just as well? *Answer* : In some cases the connection between the sprinkling of grains and the eventual results is controlled by scriptural injunctions. *Objection* : But when performing, say, the rite of *śrāddha* in an attempt to succor the departed spirits of ancestors, the sacrifice must affect not us, the sacrificers, but those departed spirits. *Answer* : No, this is not a causal regularity. Nothing is produced in the sacrificial fire, etc., something only is produced in the sacrificer.

91-98. (E134-38; T27-29) *Objection* : If the characteristics of wholes are brought about by the "cooking" of atoms without any causal efficacy having to be attributed to those atoms, how can we explain the first production at the beginning of a cycle? *Answer*: It is the same explanation, except that at the beginning of a cycle the unseen merit and demerit of the self brings together the atoms, whereas in present-day agriculture the farmer brings together the factors making up a seed, etc. *Objection* : Then perhaps we can get along without agriculture, and farm just by exerting merit and demerit directly! *Answer* : No, farming is a pleasant exercise and it would be too bad to live in a world without it. Furthermore, the causal relations guiding the farmer provide a settled order in which the unseen operates, and in an unsettled, chaotic world enjoyment would not accruere from the operation of the unseen.

99-100. (Including *kārikā* 12. E138-39; T29) *Objection* : If cooking produces no individuating characteristics in things, how can they take on such individuating characteristics as coming-to-be, not-coming-to-be, fluidity, hardness, etc.? *Answer* : There are a variety of instrumental causes which contribute to the characteristics of middle-sized things. E.g., the characteristics of the component parts are one such kind of instrumental cause, but another is the presence of a god (*devatā*); still another is recognition (*pratyabhijñāna*).

103-07. (Including *kārika* 13. E141-43; T30-31) The ancient test by which one endeavored to find out whether some one has committed a crime or not by use of a balance is raised by way of criticism of Udayana's view. How is the coincidence between the right and one side of the balance to be explained, except by assuming that a causal efficacy is produced in the balance which then gives us the result? *Answer* : No; the balance test is used to bring out an auxiliary condition, which helps bring about the result of the test.

This auxiliary condition is the recognition of guilt or innocence by the one being tested, or perhaps the presence of appropriate gods indicating the result, or it may be that the test produces an unseen element in the person under trial. None of this requires the production of a causal efficacy, however.

108-10. (E143-57; T31-32) *Opponent* : What instrument of knowledge do you use in justifying your denial of causal efficacy? *Answer* : None whatever. *Opponent* : Then you do admit the category? *Answer* : Certainly ! *Opponent* : Well, what is it then? *Answer* : It is causality (*kāraṇatva*), that is, a necessary (relation among) universals determined by an earlier time (*pūrvakālaniyatajātīyatva*), or, again, the nonproduction of the effect when a necessary condition is lacking. If one understands the term "causal efficacy" in this manner Udayana has no objection to use of the term.

111-15. (*Fourth Rebuttal.* E157-60; T32-33) This section deals with the Sāṃkhya opponent who holds that since the self (*puruṣa*) is devoid of attributes, including *adṛṣṭa* or "the unseen," and is inactive, purification (cf. section 74ff. above) cannot be of the self but only of the elements of *prakṛti* which constitute the body, senses, etc., of a person. So the opponent asks Udayana to show that the purification must be of a sentient self. Udayana's answer is that if the selves were not connected with bodies they would all be equally related to each and every body; as a result there would be no regular connection between meritorious actions of a body and the self's enjoyment of them, and causation with respect to the *karmic* process can be reconstrued in an epistemological fashion. No, says Udayana, since a self cannot form judgments (*buddhi*) until it has a body.

116-20. (Including *kārikā* 14. E160-66; T34-36) Udayana expands on this last point. He describes the Sāṃkhya theory of the purity of the selves in great detail, and gives the theory of the order of the arising of the various categories of the Sāṃkhya system. On this theory the agent and the ultimate knower are different things. The agent is the *buddhi*, which in Sāṃkhya is a tripartite mechanism which reflects the self and the object and relates them for action in a judgment of the form "this is to be done by me." The "by me" element is illusory (*māyā*) since there is nondiscrimination of the self from the ego; the reflection of the object—"this"—is what is real. It is like the reflection in a mirror of someone with a dirty face.

Udayana's answer to this is that if the experiences of the agent are not determined by the *karma* of the agent, there will result either no liberation or no *saṃsāra*, and that therefore the self must be held to be the agent.

121-33. (E166-72; T36-39) The Sāṃkhya thesis that the identification of the agent with the subject of knowing is an illusion is denied on the grounds of experience—we find them together. Udayana challenges the opponent to give an argument to sublate the identification. The opponent tries : the subject of knowing is subject to transformation (*pariṇāma*), he says. But so is the agent, replies Udayana. The opponent tries again : the agent is a product. No, says Udayana; all that can be shown is that the agent is beginningless.

If knowledge is eternal, as Sāṃkhya holds, then there can be no liberation or else no *saṃsāra*, since if the *puruṣa* is intrinsically knowing he cannot become ignorant and be liberated; or even if *per impossible* he is thought to do so, what is the occasion for his changing in this regard? The Sāṃkhyite answers that it is due to the presence of previous, beginningless traces (*vāsanā*). Udayana replies that if so, liberation from these traces cannot be hoped for.

134-37. (Including *kārikā* 15. E173-75; T39-40) A new opponent enters the picture. He holds that it is the body itself which is the agent as well as the knowing subject, and that it is the traces of the judgments and actions of bodies which determine their future experiences. Udayana's answer to him is this. One man cannot recollect the experiences of another. But then if the body were the self, it would be the same with the various bodies lived through in one lifetime : are old man would not recall his childhood and youth, since his bodies then were entirely different. *Opponent* : Presumably the traces of the youth are transmitted to the old man. *Answer* : Then why does not the mother transmit traces to her embryonic child in the womb? *Opponent* : The idea is that if *x* is the inherence cause of *y*, *x*'s traces pass to *y*. *Answer* : Not true. The arms and legs of the youth's body, which are among its inherence causes, if cut off are not among the inherence causes of the old man's body, yet according to the hypothesis the old man can recollect sensations experienced in those arms and legs.

138-40. (Including *kārikā* 16. E175-77; T40) Now Udayana turns to the Buddhist, who holds that nothing persists longer than a moment and that therefore there is no need to postulate a self in addition to the body. Udayana proposes to refute the momentariness doctrine by showing that on the Buddhist view inference becomes impossible, but inference is nevertheless necessary to prove momentariness; as a second argument, he will show that perception depends on ascertainment (*niścaya*), which presupposes persistence of entities through time.

141-44. (E177-179; T40-41) One cannot hold the thesis of momentariness if one admits that causation is a relation between two stages of something such that if certain causal factors are present an attribute *F* occurs while if those factors do not occur *F* does not appear. The reason is that this account assumes that the two stages are stages of the same *thing*, which persists. Now take a cause *C* and an effect *E*; in both the Buddhist must admit there may be no unity among "their" various stages, and so a doubt may arise about a stage "of *C*" as to whether it, or another stage, caused *E*, and likewise a doubt may arise about a stage "of *E*" as to whether it is the effect of *C*. This effectively rules out any causal inferences.

145-58. (E180-89; T41-45) This shows, says Udayana, that persisting things have universal characteristics, and it is in virtue of them that the things participate in causal relations. Restrictions on what can be construed as a universal help regulate concomitances; e.g., the rule proscribing overlapping of universals unless one includes the other.

The opponent tries to counter by charging that the Naiyāyika's causal aggregate is itself a contradictory notion, since it involves the fault specified; e.g., a *śiṃśapā* tree and its shaking are different and yet the same causal aggregate produces them both on the Nyāya view. This example is discussed at some length, and eventually set aside as not yielding the opponent's conclusion of momentariness.

159-64. (E190-92; T45-46) The opponent cannot very well give up inference as a way of knowing, says Udayana, for momentariness can only be proved by inference. It cannot be proved through perception, because in perception we must be able to recognize distinctive characteristics of the thing we perceive, while in the Buddhist view, since the field of perception is limited to the present moment, there can be no distinguishing the chracteristics of the things perceived (now) from the characteristics of other things (perceived before or after).

165-72. (Including *kārikā* 17. E192-94; T46-48) A Cārvāka now says : You are right, we cannot prove momentariness by either inference or perception. Therefore we must remain in doubt about it. *Answer* : Since in the Cārvāka's view everything is doubtful, the very notion of doubt is undermined, since doubtfulness only makes sense in a context where valid knowledge is possible. Furthermore, the Buddhist is willing to admit that there *can* be ascertainment of a thing's character at the moment it exists, as least with regard to its spatio-temporal occurrence; by the very same method of identification persistent objects can be identified.

173-78. (Including *kārikā* 18. E194-96; T48-49) Are thing's positive existence is intrinsically bound up with its ability to enter into causal relations. If the Buddhist attempts to avoid this line of reasoning by saying that the causality of a thing is dependent on accessories, then he must admit that these accessories have persistence. Otherwise, if specific causal relations are abandoned, the only positive existents will be eternal.

179-89. (Including *kārikās* 19-20. E196-202; T49-52) *Opponent* : Very well, we will admit then that positive things are eternal. Now eternal things do not enter into causal relations at all, since causality involves both positive and negative concomitance and there is no possibility of negative concomitance between eternal things. Therefore there is no persistence (eternal things are *ex terna*—out of time altogether!) and momentariness is established. *Answer* : No, for even eternal, all-pervasive objects can enter into causal relations; concomitance is not always needed to establish causality. For example, in establishing that substance *x* is the substratum of attribute *P*—i.e., the inherence cause of it—what we need to know is that *x* precedes *P*. Now *x* and *P* may both be eternal objects, but their causal relation need not be eternal. And the contributing causal factors in the type of causality which does involve concomitance may well be an eternal object—e.g., God, as we shall see.

Udayana closes Book One with a prayer to God, the contributing cause, whose power is wrongly described as *māyā*, as *prakṛti* or as *avidyā*, but who is serene, creator of the universe and the direct witness of its events.

BOOK TWO

1-4. *Second Argument Rebutted.* (Including *kārikā* 1. E205-10; T53-54) *Opponent* : True, we need a way of learning about transcendent things. But we need not bring God in for this, since we learn about transcendent things either through the Vedas—which are eternal and without defect—or through an omniscient self who has perfected himself through yoga and meritorious actions. *Answer* : (1) Valid knowledge depends for its validity on something other than merely the source of knowledge as such. Therefore the validity of the Vedas must be due to another cause, specifically to the reliability of its author. (2) Creation and dissolution of the universe are possible. (3) The true authority can only be God. These are the three rebuttals, expanded in the succeeding paragraphs.

5-33. *First Rebuttal.* (E210-33; T54-60) *Opponent* : The validity of knowledge is intrinsic. Wrong judgment arises from some fault in the causal factors which combine in producing the judgment. Thus validity may be defined as absence of faults in the factors. These faults are typically things like inattentiveness and desire to mislead others, faults which may arise among human speakers. But since the Vedas are eternal and have no author at all, no faults can arise to vitiate the knowledge they impart. *Answer* : You say that faults are additional factors which make the resulting judgment invalid. Then you should be willing to admit that absence of a fault is an additional factor which makes the resulting judgment valid—and this is precisely our view, viz., that validity is due to extrinsic causes. *Opponent* : Very well, but absence of fault is a negative entity. I will revise my thesis to say that there are no extraneous *positive* factors productive of validity. Then I can admit that absence of desire to mislead, e.g., is an extraneous factor consistently with my account. *Udayana* : You are thinking of inattentiveness and desire to mislead as faults. But there are other sources of invalidity, other faults which are not positive, such as the fallacies of the *hetu*, for example, which are negative things, failures. And the absence of a negative thing is a positive entity. Thus you must admit positive extraneous factors and accept our view.

A long section follows in which Udayana labors to show that whatever claim the opponent can make to show that validity is intrinsic can be used against that thesis by parity of reasoning.

34-87. (E233-75; T60-75) *Opponent* : All right, perhaps validity is extrinsic. Nevertheless, since the Vedas are eternal and since their validity is established on the ground of their acceptance by wise men, they are not dependent on any author for their authority. *Answer* : No, for sounds are not eternal, as we know from experience. When a sound ceases, it is not that it goes somewhere else, since it is not the sort of thing that "goes" anywhere. Other explanations of why we do not hear the sound even though it still exists are faulty.

A section of the Naiyāyikas holds that one cannot perceive the cessation of sound since perception cannot grasp absences. Udayana holds that perception can grasp absences, that the relation between absence of sound and the hearing organ is a straightforward one of qualified and qualifier. The question is raised : What are the conditions under which such perception can take place? Must the locus of the absence be perceptible, or must both be perceptible? Udayana answers that only the counterpositive must be perceptible—otherwise "here on the floor there is no jar" would not be a judgment

of perception, which it patently it (he claims). For in this judgment what is being claimed to be absent is floor-jar-contact, and this contact is absent from the floor as much as from the jar. Therefore the floor and the jar stand on the same footing as far as the necessity of their perceptibility is concerned in an example such as this. To be sure, the floor is perceived in this example, but it is not necessary in general that the locus of a perceptible absence be itself perceptible. Indeed, it is only in such an account that we can explain how we know something like "the sound I heard before does not exist now."

Opponent : This judgment just mentioned may be known through inference. *Answer* : No, because it is impossible to specify a *pakṣa* for the argument. The obvious candidates, such as *sound*, *noneternity*, *ākāśa*, or even *time* will not do. *Opponent* : But suppose the inference is thus : "I have at this time an ear without sound, because I am not aware of any sound, like a deaf person." *Answer* : That is contradictory. An ear is by definition something which has sound (since *ākāśa* is what makes up the auditory organ).

More generally, Udayana shows that absences must be perceptible to account for any judgment which reports the destruction of a quality of *x* upon the destruction of *x*. This cannot be known through inference, for it is through its qualities that we know *x*.

Opponent : Sound is eternal and remains ever the same. What varies is intensity, etc.; but these are not qualities of sound but rather of the air. *Answer* : No, for if it were so we should be able to feel the intensity with our fingers, since touch is the peculiar quality of air, and the ear should not apprehend differences of intensity, since it is made of *ākāśa*. And in any case, if the intensity of sound is made a quality of a material substance it will either be noneternal (being destroyed along with composite air-wholes) or else below the threshold of perception (if sounds are conceived as being qualities of the atoms of air).

88-98. (E275-82; T75-78) Why is sound a quality and not a substance, asks the opponent. *Answer* : Because it causes the states of the external sense organs, like color. It is no argument against this that heard sound is not a quality of the ear, nor generally that the qualities grasped by a sense organ are not its own qualities. The qualities are of the right variety, but are not grasped because they are not fit to be so in the particular context. Sense organs function to grasp the qualities of objects, not their own qualities. Sometimes the qualities of a substance *are* grasped by it, e.g., when a self grasps its own feelings.

99-103. (E282-86; T79-81) Sound is produced, because it

has greater or less degrees of intensity, like sweetness. This inference proves the noneternality of sound, since degrees of intensity require extraneous things to produce the changes in degree, and an eternal thing must have whatever qualities it has intrinsically and cannot change without violating its own nature. *Opponent* : But this just assumes that *eternality* and *being produced* are contradictory properties. Where is the proof for that? *Answer* : Because whatever is produced must also have a cause of its destruction. *Opponent* : Why is that? *Answer* : Because we experience it to be so.

104-20. (E287-99; T81-83) *Opponent* : Well, if sound is noneternal, how can the meaning of words be explained? For words designate universals, which are eternal, and not individuals. *Answer* : Even though the meanings of words be universals, still the relation of noneternal words to things is explicable in just the way we ordinarily relate noneternal objects to words, for sometimes we do not relate a word to its proper object. *Opponent* : Well, nevertheless we must presuppose that a word has a unique meaning. *Answer* : What is this "presupposition" (*ākṣepa*)? It is not inference, since we cannot find particulars without universals—or if we can, then we can just infer the relation between them. And it cannot be presumption, since there is nothing unreasonable about there being individual denoted by a word. *Opponent* : But the universal depends on its having individual instances. *Answer* : No, a universal exists even when its individuals have been destroyed or are not yet produced.

121-36. *Second Rebuttal.* (Including *kārikā* 2. E299-306;, T84-88). *Opponent* : The universe is eternal, i.e., it continues always in process without break. Thus there is no scope for creation and therefore none for a creator self (= God). For if there were cyclical dissolution and consequent creation, the *karma* of all persons would have to be worked out simultaneously. Furthermore, we should be unable to justify caste differences, since the caste of an individual would not be natural to him but would have to be created anew at the beginning of each cycle. Finally, we should be unable to understand the meanings of words which are, in the Nyāya view, conventional and so would be forgotten over the interim period between cycles.

Answer : (1) A day in the rainy season is regularly preceded by other rainy days, but eventually we find that the first rainy day is preceded by the last day of sunny weather which contains the causal factors contributing to the coming of rain. Likewise the first day of a given cycle is preceded by the last "day" of the interim period

which contains the causal factors contributing to the coming of the new cycle. (2) At the end of a cycle it is not necessary that all individuals' *karma* comes to an end. Their *karma* is merely suspended, just as we experience suspension of activity in deep sleep. (3) Just as the first scorpion is produced, not from another scorpion but from the dung-heap so the first Brahmin is produced from what is not a Brahmin. But nevertheless the subsequent line of Brahmins (like the subsequent line of scorpions) is distinguished from other castes by the causal factors determining them. (4) Finally, conventional usages are taught to men by God at the beginning of each cycle.

137-40. (E306-13; T88-89) *Opponent* : Very well, but why should we accept the notion of creation? What positive argument can you provide? *Answer* : This universe, which is a series of effects, arose out of the ultimate atoms, just as the flames of a fire arise from the ultimate particles.

141-72. (Including *kārikā* 3. E313-31; T89-99) Now Udayana argues at length that the universe is deteriorating, the Vedic tradition is dwindling and will eventually become extinct. He appeals to the gradual deterioration of caste purity and *dharma*; he goes so far as to suggest that scripture no longer has any function since its utility depends on inference and convention. He cites the fact that certain sacrifices (Rājasūya, Aśvamedha) are no longer performed. If the Vedas are to be authoritative and clear they would have to be perceptible, and they are no longer so. Thus the universe, losing the gist of scripture, declines. *Opponent* : The scripture is perceptible, but it has somehow gotten hidden somewhere else. *Answer* : No, for how can you explain why it is not here? Have the Brahmins gone elsewhere? Then there are no reliable persons in India! Or has the study of the Vedas been somehow interrupted? But how could this happen when there have been Brahmins whose business it was? It is reasonable to assume, rather, that our understanding of scripture gradually wanes due to the decay in our powers of faith and self-control. For to follow the path of the Vedic scriptures is hard, and involves care, attention, clarity of vision, great effort, and an attitude of nonattachment, unlike the path of Buddhism which appeals to lazy, worldly, unqualified people.

173-78. (E332-34; T99-101) *Opponent* : Since *pralaya* — the interim between cycles — involves a cessation during which nothing can be produced and nothing destroyed, why should anything come into being again ever? Other systems have answers : Sāṃkhya explains it as the transformation of *prakṛti*, Bhāskara as the transformation of Brahman, and the Buddhists credit the traces. But Nyāya

cannot explain creation, since it allows no specific *upādhis* to exist, during *pralaya* which could initiate a change. All the things that exist during the cosmic pause are eternal things, which in themselves do not change.

Answer : Creation takes place naturally when an appropriate amount of time has passed. The activity of the atoms decreases in intensity until a state called *pralaya* is reached, where the atoms merely come together without aggregating and serve only to mark time. As for why *pralaya* ends at a particular point rather than another, that may be explained as due to experiences in another universe.

179-89. *Third Rebuttal.* (Including *kārikā* 4. E334-39; T100-04), *Opponent* : Fine ! Then there is no need for a God. Kapila and other wise men can be the moving force for creation and for the Vedic scriptures, and there is no need for an omniscient being who knows the exact number of worms in the world ! *Answer* : No, even if we accept that direct experience is the means of knowing things beyond the reach of the senses, still this experience does not give us liberation — and it is only when we have found the support of liberation that we can rest satisfied with our theory. The claims that Kapila, or Brahmins in general, can be the final support of liberation rest on shaky foundations. We cannot recognize a person as the same person through several lives, or if we can, we cannot be sure that he is still a Brahmin (much less a sage). Thus we need the hypothesis of God to justify the initial acceptance of the Vedas by reasonable men.

The second Book concludes with devotion to Śiva, the creative, omniscient God who creates and destroys through his *māyā*.

BOOK THREE

1. *Third Argument Rebutted. Vs. Arguments from Nonapprehension.* (Including *kārikā* 1). E341-43; T32-33). *Opponent* : God's nonexistence can be proved by nonapprehension (*anupalabdhi*) thus : If God exists he would be perceived; but He is not perceived; therefore he does not exist. *Answer* : No, for God is not the kind of thing that can be perceived. He is beyond the senses. This form of argument from nonapprehension only applies to things which are fit to be perceived.

Opponent : This sort of evasion will render any instance of the argument from nonapprehension useless. For one might as well argue that a hare's horn, since it is not fit to be perceived, does exist even though it is not perceived. *Answer* : Hares can be perceived,

and so can horns. It is just a fact that no horns belong to hares. Furthermore, God's unfitness to be perceived is due to the fact that He has no body. Among sentient things only those with bodies are fit to be perceived.

2. (E343-46) Since even though one's self is perceptible one cannot disprove its existence by the argument from nonapprehension, how much less in the case of God. For in dreamless sleep, since the general cause of all judgments — namely, contact between internal organ and the sense organs — is absent, there is no perception during that period of the self's existence.

3. (E346-62) *Opponent* : But the internal organ is all-pervading, and so always in contact with everything that is substantial and exists. *Answer* : No, for that would preclude the establishment of the nature of anything.

4. *Vs. Inferences Proving God's Nonexistence.* (E362-63) *Opponent* : An agent always has a body. Now since God has no body God cannot create anything. Also, action always involves a motive in the agent. But since God is without desires he cannot create. *Answer* : These inferences, and any inferences which are formulated with the term "God" occupying the place of the *pakṣa*, must fail due to self-residence, unless God's existence is first admitted.

5. (Including *kārikās* 2-3. E364-68; T33-34) *Opponent*: Very well, in order to get the inference started we will accept God's existence, but then we shall use inference to disprove His creativity. *Answer* : No, for any inference which assumes God's existence, supposing God does not exist, would therefore be totally fallacious. If you intend to argue that something is not an agent, then the argument must be about something existent in order to be an inference at all. If God does not exist He cannot be the counterpositive of His own negation.

6. (Including *kārikā* 4. E368-70; T34) *Opponent* : All right, but I do admit the existence of selves. So I'll formulate the inference to be about selves, and argue that selves are neither omniscient nor capable of creating the universe. *Answer* : We agree that ordinary selves are neither omniscient nor creators. But that will not suit your needs. You want to speak about God, who is not an ordinary self, and you must identify Him somehow. *Opponent* : Very well, we identify Him as something which has *selfhood*. *Answer* : As I said, you are knocking down a straw man. We admit that selves are not generally omniscient nor creators.

7. (Including *kārikā* 5. 370; T35) *Opponent* : Since the scriptures speak of God we can formulate inferences about Him.

Answer : If you appeal to the scriptures as authority for talking of God, then you cannot very well go on to deny His omniscience and creativity, since the scriptures affirm them too. And if the scriptures are not authoritative then you cannot formulate any proper inferences about Him.

8. (Including *kārikā* 6. E370-74; T35-36) *Cārvāka* : We do not accept that failure to perceive something proves its nonexistence only if the thing is capable of being perceived. Only what is perceived can be said to exist at all. *Answer* : If so, there could not be what we call "doubt" since all questions could be settled by inspection only. Furthermore, under these conditions perception would in fact be impossible. For sense perception depends on the sense organs, and the sense organs are not themselves perceived. Since they are not perceived, on Cārvāka assumptions they do not exist. But if they do not exist, perception cannot take place.

9. (Including *kārikā* 7. E374-424; T36-37) *Opponent* : Inference is not a proper means of gaining true knowledge, for there is no effective (*prayojaka*) *hetu* which is not subject to doubt, i.e., which does not harbor the possibility of error ("wandering" — *vyabhicāra*). *Answer* : If one can doubt the effectiveness of inference on the ground that pervasion wanders, then one must have a conception of a valid inference against which the deficient ones are to be compared. In that case inference must be admitted to be sometimes valid. So if one finds error at all, that proves the utility of inference. On the other hand, if one cannot find any instances of error in inference, this proves the utility of inference also!

Opponent : But we ask, in good faith, how can the doubt caused by the possibility of two contradictory *hetus* be resolved? *Answer*: It is resolved by *tarka*. *Opponent* : But upon what does the *tarka* itself rest? If it requires invariable concomitance there will be an infinite regress. *Answer* : No, for doubt is limited by its own utility. Doubt would have no point if everything were doubted. So in practice doubts only arise up to a point of satisfaction. To doubt beyond that is stultifying.

10. *Vs. Comparison Proving God's Nonexistence.* (Including *kārikās* 8-10. E424-32; T37-40) *Opponent* : Some say that comparison is not a distinct instrument of knowledge and so cannot be used to disprove God's existence. But it is a distinct instrument, since it has its own unique content, namely similarity (*sādṛśya*). *Answer* : True, comparison is a distinct instrument of knowledge, but its apprehension of similarity is not the reason, for similarity is not a distinct category of objects. For if we bring in an additional instrument to

apprehend similarity, then we should by parity of reasoning bring in still another instrument, say presumption, to apprehend dissimilarity. But that is clearly nonsense; neither is needed, for similarity and dissimilarity are relations among positive and negative things categorized according to the sevenfold (Vaiśeṣika) scheme. *Opponent* : Well then, if similarity is not the content of comparison, what is ? *Answer* : It is the relation between the denoter (*saṃjñin*) and the denoted (*saṃjñā*).

11. (Including *kārikās* 11-12. E432-48; T40-43) Udayana defends his interpretation of comparison's content by showing that the knowledge that the word *gavaya* denotes the animal corresponding to it cannot be produced through any of the other instruments of knowledge. It cannot be produced through verbal testimony, since the man who hears that a *gavaya* is like a cow is not given any further idea of the *gavaya's* properties and so does not know that *gavaya* denotes the animal until he sees it. For the same reason it cannot be inference, for inference depends on prior perception of the properties of the animal. Furthermore, Udayana adds, the statement "a *gavaya* is like a cow," which is a piece of verbal testimony, needs nothing supplied to it to explain its meaning; it is informative in itself. Thus one cannot suppose that it has some hidden meaning which only gets fully realized when we perceive the animal later on.

12. *Vs. Verbal Testimony as Proving God's Nonexistence.* (Including *kārikās* 13-17. E449-86; T43-49) Udayana begins by refuting the Vaiśeṣika, who argues that verbal testimony is a kind of inference. Specifically, the inference in question is the sort of inference by which we infer that a sentence has a certain meaning : e.g., "This sentence has a meaning, because it is brought to our recollection by the aid of words which possess expectancy, semantic fitness and contiguity, as in the case of the knowledge of the meaning of a sentence like 'drive the cow with the stick'." Udayana complains that this inference might be supposed to show that the sentence in question certainly has a meaning or only that it may have one. But it does not show that it certainly has one, for some sentences pass the tests and still are not meaningful, e.g., "he sprinkles with water." And one does not need an inference to show that the sentence may possibly be meaningful, since it is assumed to be so in that the *hetu* presupposes that the words are meaningful and related so as to render sense. In fact, expectancy is a cause of verbal knowledge by itself; it needs no inference to produce that result.

The Prābhākaras, however, think that the authority of verbal testimony must be inferred from the worthiness of the speaker (except

in the case of the Vedas), and only after this can we be sure that the sentence expressing the testimony is meaningful. Udayana replies that the inference in question will necessarily have the sentence in question as an element in its *hetu*, and the one who is making the inference will thus already know the meaning of the sentence before he finishes formulating his inference. Otherwise even the Vedas can be shown to owe their meaningfulness to an inference from the fact of their being free from the defects inherent in human authorship, and this is an unsatisfactory outcome of the Mīmāṃsā position.

Opponent : All right, suppose verbal testimony is a separate instrument of knowledge. Nevertheless, it can show that God does not exist. *Answer* : If the testimony is from the mouth of an unworthy person it is no proof; if it is the testimony of someone worthy, he must be able to see what is supersensible; and thus the author of the authoritative scriptural passages must be the omniscient God. As for passages from scripture which appear to deny His existence, Udayana says they must be interpreted according to secondary meanings, since there are also scriptural passages which affirm God's existence and that these are the authoritative ones will be proved by inference (in Book Five).

13. *Vs. Arguments from Presumption for God's Nonexistence.* (Including *kārikās* 18-19. E486-99; T49-52) Presumption is not a separate instrument of knowing, since it is a species of inference. For the relation between what is to be explained and the presupposition which is introduced to explain it must be pervasion. *Opponent* : Presumption has to be brought in when two instruments contradict each other; then something is assumed in order to avoid the contradiction. *Answer* : That is, it is inferred that the two instruments do not conflict. Or if you still wish to call this "presumption," then just substitute that word for "inference."

14. *Vs. Arguments from Nonapprehension for God's Nonexistence.* (Including *kārikās* 20-22. E502-34; T52-56) We have already seen that nonapprehension does not disprove God's existence (cf. sections 1-3 of this Book). It is not an additional instrument either. For the content of nonapprehension is absences, and we Naiyāyikas hold that absences of perceptible things are themselves perceptible. We argue this on the following grounds :

(1) We grasp absences directly, just as directly as we grasp positive perceptible things like color.

(2) We can grasp the substratum of an absence with our senses, e.g., we can see the ground when we report "there is no jar on the ground."

(3) Whereas other instruments require some other judgment upon which they depend, perception does not. Now since experience of absences does not depend on any other judgment, it is a case of perception.

(4) The counterpositive of an absence of a perceptible thing is perceptible by the senses, so the absence itself is perceptible by the same senses.

(5) One cannot rule out sensory knowledge of absences on the ground that a sense cannot grasp something which is not there, for something is there, namely the ground or locus where the absence is located.

(6) We can make mistakes in cognizing absences. Now non-apprehension cannot be mistaken, since nothing is involved which might be defective. Whereas according to our view the senses *are* involved, and they may become defective, thus causing erroneous judgments.

(7) Judgments that something is absent can be stated in two ways : (a) where the substratum is the subject and the absence is the predicated, e.g., "the ground possesses absence-of-jar," and (b) where the absence is subject and the substratum predicated, e.g., "absence-of-jar is on the ground." Now it is not possible that one instrument of knowledge apprehends the subject and another the predicate of these judgments; therefore the opponent cannot say that perception grasps the ground, the substratum, while nonperception grasps the absence : they must both be grasped by the same instrument.

15. (Including *kārikā* 23. T57) The Book ends with an invocation to the allpowerful God of gods.

BOOK FOUR

1. *Fourth Argument Rebutted.* (Including *kārikā* 1. E1-6; T58) *Opponent* : We cannot trust God's knowledge, for it is not valid knowledge. Valid knowledge must be knowledge of something that has not been known before, and since God's knowledge is eternal, it is not valid. *Answer* : Your definition of validity is mistaken. On the one hand it underextends: it fails to include cases where we continue knowing something for some time; surely this is knowledge as much as any. And on the other hand, it overextends, for it makes a false judgment about something new into a piece of valid knowledge. The correct definition of validity is this : a valid judgment is one through which we experience (*anubhava*) an object as it actually is

(*yathārtha*), when this judgment is not dependent upon some other judgment. (This last clause is intended to rule out memory.)

2. (Including *kārikā* 2. E7-18; T59-60) *Opponent* : You speak of experiencing the object as it actually is. But what determines what the object of a given judgment is ? Your definition is incomplete. It should mention that the particular condition (*upādhi*) of an object which is cognized is that it has the property of *being-known* or *knownness* (*jñātatā*). *Answer* : Such a condition is not necessary. The relation between a judgment and its object is natural (*svābhāvika*). If a judgment had to have knownness present in its object, then the question would arise : why does that judgment produce knownness in just that object and not some other ? Then there will be an endless regress. To stop this regress we must eventually admit a natural relation between a judgment and its object, and so we should admit it immediately.

Furthermore, how could *knownness* come to qualify objects in the past or in the future, which are objects of valid judgments ?

3. (Including *kārikās* 3-4. E19-42; T60-62) *Opponent* : But what does a judgment do ? Knowing is a kind of act (*kriyā*), and thus must produce something in its effect, namely an action (*karma*). *Answer* : It is not clear what you mean. Do you mean that a judgment always produces some effect in what the judgment is about ? But it frequently does not: e.g., in the judgment "*ākāśa* is conjoined with an arrow," nothing happens to *ākāśa*. Or do you mean that the instrument of knowledge—say, the sense organ—always affects the object of the judgment ? But that is not true either; what is produced by the contact of the sense organ with its object is not a change in the object but a change in the knower. Judgments are formless (*nirākāra*). Differences among judgments are solely due to differences among their objects.

4. (Including *kārikā* 5. E42-46; T62-63) *Opponent* : Valid knowledge must be an effect (of a valid instrument of knowing). Now God's knowledge, since it is eternal, cannot be an effect. Therefore God's knowledge is not valid. *Answer* : God's knowledge is valid because it lacks inaccuracy.

5. (Including *kārikā* 6 of E. E46-48; T63). *Opponent* : God's knowledge cannot be valid, since He is omniscient, and omniscience involves cognizing everything, both invalid and valid alike. *Answer* : Not so. God knows validly which of *our* judgments are valid and which invalid.

BOOK FIVE

1. (Including *kārikā* 1. E319-25; T64-66) Udayana gives 8 reasons to prove the existence of God : the Sanskrit words for these are (1) *kārya*, (2) *ayojana*, (3) *dhṛti*, etc., (4) *pada*, (5) *pratyaya*, (6) *śruti*, (7) *vākya*, and (8) *saṃkhyāviśeṣa*. These 8 reasons are interpreted in 2 ways, first to refute the Sāṃkhya and then the Mīmāmsā varieties of atheism.

A. *First Interpretation*: *Criticism of Sāṃkhya Atheism*. (1) '*Kārya*' here means *effect* or *creation*. The inference using this *hetu* is:

Inf. 1 : The universe (is) creator-possessing,
Because of being an effect,
Like a pot.

The *sādhya* in this inference is the property of *creator-possessing*, the *hetu* is the property of *being an effect*. The pervasion is thus

Perv. : Whatever is an effect must have a creator.

The supporters of Sāṃkhya find five defects in Inf. 1 by accepting the fundamental principle :

FP: Every creator (agent) must have a body.

The five objections are as follows :

Obj. 1 : Inf. 1 commits the fallacy called *bādha*. This can be shown as follows. The *s* in Inf. 1 is a qualified entity—the property of *creator-possessing*. The qualifier is the property of *being a creator*. There is a rule of logic that the negation of the qualifier implies the negation of the qualified entity. (For example, if a thing is not red, then it cannot be a red rose.) Now as God, according to Nyāya, does not have a body, he cannot be a creator (from FP), and this contradicts the qualifier in *s* of Inf. 1, and hence the *s* itself. We have also the certain knowledge derived through perception that the universe does not have a creator. So the *hetu* (*being an effect*, i.e., a creation) is *bādhita*. (A *bādhita hetu* tries to prove an *s* whose negation has been ascertained in the *p* by other instruments of knowledge).

Obj. 2 : Inf. 1 commits the fallacy of *satpratipakṣatā*, i.e., there is a counter inference which is equally justified and which proves the contradictory of the *s*. The counter inference here is : The universe is not creator-possessing, because it is not produced by an embodied person, like *ākāśa*.' Here the pervasion is : Whatever is not produced by an embodied person is not created at all (which follows from FP).

Obj. 3 : Perv. is contradicted by FP, hence Inf. 1 based upon Perv. is fallacious.

Obj. 4 : The *s* in Inf. 1 involves a creator without a body,

but FP demands that it has a body. Thus the *s* is impossible, being a creator with and without a body.

Obj. 5 : Perv. of Inf. 1 is vitiated by the *upādhi being produced by a body*. (An *upādhi* pervades the *s* but does not pervade the *h*, and thus proves that the *s* does pervade the *h*, for pervasion is a transitive relation; if *s* pervades *h* and the *upādhi* pervades *s*, then the *upādhi* must also pervade *h* which it does not, hence in such cases the *s* also does not pervade *h*.) Here we have : (a) Whatever has a creator is produced by an embodied person, and (b) It is false that whatever is produced is produced by an embodied person. This, if the Nyāya theory is correct, will be unavoidable. For Nyāya holds that the universe is an effect, but not produced is produced by a body. Here (a) shows that *being produced by a body* pervades the *s* of Inf. 1, while (b) shows that it does not pervade the *h*. Hence Perv. of Inf. 1 is invalid.

2. (Including *kārikā* 2. E321-25; T66-68) Udayana answers the five objections :

Re Obj. 1 : Obj. 1 amounts to saying that God does not have a body, hence cannot be a creator. But every knowledge of an absence requires a knowledge of the locus of the absence. Hence if we know that God is the locus of the absence of body, then we already know God.

If this knowledge of God is thus necessary (even for saying that God does not have a body) then Inf. 1 is more powerful and hence overrides the *bādha*, and falsifies the contention that perception gives us indubitable knowledge that the world does not have a creator.

Re Obj. 2 : The counterinference is invalid, because its *h* is unjustified. There is no point in offering *not produced by an embodied* person as the *h*, when mere *not being produced* is enough. The additional "....by an embodied person" is useless.

Re Obj. 3 : FP is less justified than Perv., hence it cannot contradict it.

Re Obj. 4 : If it is *proved* that the world is created by a creator without a body, then the *s* cannot be contradictory (for what is proved cannot be self-contradictory). We have therefore to hold that some creators have bodies, while some do not have bodies. Hence there is no need to hold that there is a creator with and without a body. On the other hand, if God's existence is *not* proved, then there also can be no contradiction, for the so-called self-contradictory entity has not been proved to exist.

Re Obj. 5 : (a) is unjustified, hence Inf. 1 is justified.

3. (Including *kārikā* 3. E335-37; T68-69) *Opponent*: If we have a doubt about the existence of God this doubt cannot be resolved.

The doubt can be justified by an argument, viz., If God were the creator, then he would have possessed a body (and suffered pain, etc.); but he does not have a body; hence, he is not the creator.

Answer : This argument is ill-formed. The *tarka* (i.e., the major premise) is a counterfactual conditional, the antecedent deliberately stating a contrary-to-fact assumption which leads to a consequent which is known to be false (and hence is denied in the second premises). But in the contrary-to-fact assumption stated in the antecedent of the major premise the subject must be known to exist. It cannot be unreal. The antecedent is a contrary-to-fact assumption only because the predicate is known not to belong to the subject. But here the very subject (God) is regarded as unreal, hence the argument is not valid, committing as it does the fallacy of *āśrayāsiddhi*.

4. (Including *kārikā* 4. E340-42; T69) (2) *Ayojana* is the second reason (of the eight). Here it means *motion*. The inference is as follows :

> The universe consists of material atoms, but there must be a prime mover of these material atoms. This prime mover is God. So God exists.

Objection : The atoms themselves may produce motion because of *adṛṣṭa*. *Answer* : *Adṛṣṭa* cannot reside in material atoms. Moreover, *adṛṣṭa* can never be the *complete* cause of anything, for if it were no cause would ever be needed. Even for the production of a pot on potter would be necessary, since *adṛṣṭa* alone would suffice.

5. (Including *kārikā* 5. E347-49; T70) The third reason is *dhṛti*, etc. *Dhṛti* means the failure of a heavy thing to fall down. The inference is as follows :

> The universe is supported by a conscious effort which prevents it from falling down,
> Because it does not fall down; Like a stick carried by a bird in flight.

By "etc.," we should understand the destruction of the universe.

The fourth reason is *pada*, which literally means *word*. If we accept this meaning then the inference is as follows :

> There must be a first teacher of the use of words.
> As this conscious being cannot be one of us, the existence of God is proved.

The fifth reason is *pratyaya*, meaning *validity* or *truth*.

The inference is as follows :

> The knowledge embodied in the Vedas is due to faultless causes,
> Because it is valid, like perceptual knowledge.

According to Nyāya a judgment is true if it is produced by proper faultless causes. If there is any defect in the causes the judgment produced becomes false. Now the judgments expressed in the Vedas are true; this can be only if the author has no defect. This author, therefore, can only be God.

The sixth reason is *śruti*, meaning the Vedas. The inference is as follows :

The Vedas must have an author,
Because they are the Vedas
Like Āyurveda.

The difference between this inference and the previous one is that whereas the previous one bases the proof on the Veda's truth, this one bases its proof on the very existence of the Vedas.

The seventh reason is *vākya*, meaning *book* or *sentence*. The inference is :

The Vedas are the creations of a conscious being,
Because they are a book
Like the Mahābhārata.

The eighth reason is *saṃkhyā-viśeṣa*, meaning a particular type of number. According to Nyāya, when two atoms combine to make a dyad, the magnitude of the dyad is produced by the numbers but not by the magnitudes of the constitutive atoms. Now numbers like two, three, etc. are produced in the object by a certain kind of judgment (the "enumerative cognition" of Praśastapāda). In the beginning of the creation of the universe the atoms produced dyads, the dyads triads, and so on. Thus, there must be a conscious being who had the judgments which produced the numbers of these products. This conscious Being is God.

B. Second Interpretation : Criticism of Mīmāṃsā Atheism

6. (Including *kārikā* 6. E358-61; T71-72) Each of the eight reasons are now interpreted so as to refute the Mīmāṃsā. First, *kārya* here means the intention (*tātparya*) of the speaker. A sentence conveys the meaning intended by its speaker. The inference is : God is the Being whose intention is conveyed in the Vedas.

Ayojana means an explanation (*vyākhyāna*). The inference is : God is the first interpreter of the Vedas.

Dhṛti means here *preservation*. God is He who preserves the Vedas. "Etc." here means the performance of Vedic rites.

Pada again means *word*. Words like "I" in the Vedic hymn "I am the lord of all" refer to God, who is the speaker, just as in ordinary speech "I" refers to the speaker.

Pratyaya now means *suffix*, here the verbal suffixes grammati-

cally classified as utilized in the precative mood (*liṅ*). This mood is used in Vedic injunctions. The inference is : God is He whose intentions are the meanings of the *liṅ* suffixes of Vedic injunctions. We may explain the point as follows. An injunction is an affirmative sentence containing a verb with a *liṅ* suffix such as "those who desire to go to heaven should perform sacrifices." Whoever understands the meaning of a sentence of the above form is moved to perform some physical action. According to Nyāya we have to distinguish between the three stages : (i) an overt action of the body, produced by (ii) a desire to perform the action, produced by (iii) a judgment (a) that the action will do me good, or (b) that the action can be performed by me. Udayana asserts that the verbal suffix produces the judgment on the basis of which one infers that the action will do him good. This is the intention of a worthy person (i.e., because it is the intention of a worthy person that I perform this action, it must be an action which will do me good). Thus the meaning of the *liṅ* suffix is the intention of a worthy person (*āpta*).

7. (Including *kārikā* 7. E369; T72-74) Udayana now proceeds to refute the theory that the meaning of the *liṅ* suffix is some property belonging to the doer.

Objection : What the *liṅ* suffix in a sentence such as the one quoted above means is the physical action of the person who acts in accordance with the injunction. *Answer* : There are injunctions which do not enjoin any physical action, such as "know thyself." Hence the meaning of the *liṅ* suffix cannot be a physical movement of the doer.

Objection : The *liṅ* suffix means the mental effort of the agent, not his physical action. That is, when one hears an injunction like "know thyself" (i.e., "you should know yourself"), the "should" means that one has to make a mental effort. *Answer* : According to you Mīmāṃsakas *every* verbal suffix means mental effort. Hence, even a sentence in the indicative mood would become an injunction.

Objection : The *liṅ* suffix means the desire of the person performing the act. *Answer* : No. In the first place this leads to circularity. The desire will be a cause of the introspective knowledge of the desire (since it is an object and an object is a cause of a judgment), and this knowledge, in turn, will produce the desire (for every desire is produced by a judgment). Secondly, the *liṅ* suffix will produce only a judgment about the desire, but not the desire itself. Hence a judgment produced by the injunction will not be able to produce the action for which the desire is required. The injunction

cannot produce the desire itself, for desire can be produced only by a judgment, never by a verbal suffix.

8-10. (Including *kārikās* 8-10; 7-9 in T. E371-80; T74-77) The verb *kṛ*, "to do" or "make" is used to imply a conscious agent. For example, we say "a potter makes a pot," but not "a seed makes a seedling." So the mental effort (*kṛti*) is the meaning of the verbal root itself, and so cannot also be the special meaning of the *liṅ* suffix.

There are three different theories of the meaning of sentences. (1) Grammarians hold that a sentence produces a judgment in which the meaning of the verb becomes the subject or chief qualificand; and a verb means an action or a result. Thus the sentence "Devadatta cooks" produces the judgment that there is an action leading to a changed state of the food, which action is performed by an agent identical with Devadatta. Here the action is the subject, and the meanings of the other words are adjectival (i.e., they are qualifiers). (2) The Mīmāṃsakas hold, like the Grammarians, that the judgment produced by a sentence has the action as the subject and the meanings of the other words as adjectives. The Mīmāṃsakas differ in this, that while the Grammarians hold that the action is the meaning of the finite verb, according to the Mīmāṃsakas the action is the meaning of the verbal suffix, not of the verbal root. This action is not a physical action but merely a mental effort. In the above sentence, according to Mīmāṃsā, the action is meant by the inflection "-s" in "cooks," but not by the verb "cook" which means "the changed state (of the food)." (3) According to Nyāya, it is the suffix which means the action and in this Nyāya agrees with Mīmāṃsā and differs from the Grammarians. Nyāya differs from both in holding that a sentence produces a judgment the subject of which is what is meant by a word in the nominative case. Thus the above sentence produces the judgment "Devadatta (is the) locus of the action (= mental effort—a physical action cannot belong to a self) leading to a changed state (of the food)." *Devadatta* is the subject of this judgment because it is referred to as "Devadatta" which has the nominative case-ending.

Whichever theory one accepts, one and the same entity cannot be meant both by the verb and also by the verbal suffix. If mental effort is the meaning of the verbal suffix, then it cannot be the meaning of the verbal root also.

11. (Including *kārikā* 11, numbered 10 in T. E383-86; T76-77) One should not suppose that the verbal root directly signifies the agent; we infer the existence of an agent from the occurrence of the nominative case-ending. It is the number (i.e., singular or plural)

of that case-ending which determines, through expectancy, the number of the verb; thus the agent can in no way be supposed to be meant by the verb alone.

12. (Including *kārikā* 12; 11 in T. E393-96; T77-79) It may be contended that a sentence containing the *liṅ* suffix only means that the action has some property. For example, the sentence "those who desire to go to heaven should perform sacrifices" simply means the result of performing sacrifice has a special quality. Now the action may be (a) the object attained, i.e., heaven; (b) the *apūrva* (merit) which takes a man to heaven after death, or (c) the sacrificial rites which produce the *apūrva.*

Udayana shows that none of the three can be accepted. (a) If the action means the result, then the meaning of "should" (the *liṅ* suffix) should be its property, i.e., the property of being a result of an action. Then if the knowledge of this property of heaven (i.e., that it is attained through action) be regarded as the reason for performing the action, this knowledge should be regarded as the motive for performing all actions. For a person who knows that heaven can be attained performs not merely sacrifices, but also various other actions, and if the knowledge of attainability of heaven be regarded as the motive of some of his actions, then it should be regarded as the motive of all *his* actions (i.e., the actions of a person who knows that heaven is attainable). (b) The meaning of "should" cannot be a property of *apūrva* for the simple reason that *apūrva* can be produced only by performance of the Vedic rites. But one cannot perform these rites without first understanding the meaning of Vedic injunctions and hence of "should." (c) Even the property of sacrifices, namely that they can be performed, cannot be the meaning of "should." For there are many sacrifices which can be performed but one does not perform them for they produce bad effects. (*Śyena* sacrifice, for example, if performed, kills enemies of the performer but sends him to hell for being a killler !)

13. (Including *kārikā* 13; 12-13 in T. E404-06; T80-82) Similarly, Udayana shows that the meaning of "should" cannot be a property of the words constituting the sentence in which it occurs.

14-15. (Including *kārikās* 14-15; 14 in T. E409-15; T82) Hence Udayana concludes that the meaning of "should" (the *liṅ* suffix) is the intention of a worthy person (*āpta*). That is, any sentence containing "should" produces the knowledge that the action is intended by a truthful and virtuous person to be performed by everyone to whom the sentence is addressed.

16. (Including *kārikā* 16; 15 in T. E416-17; T83-84) The next reason (of the original eight) is *śruti*. In the Vedas there are many hymns asserting the existence of God and there are many injunctions for his worship. Just as in other injunctions words denoting heaven, etc., are interpreted to affirm the existence of heaven, etc., so also in hymns enjoining the worship of God words denoting God should be interpreted to affirm His existence.

Next, *vākya*. In the Vedas there are *arthavādas*, i.e., hymns praising and condemning certain acts. But praise or condemnation is always based on knowledge and sentences praising or condemning acts are uttered by someone who knows the worth of these acts. So also such Vedic hymns must have been uttered by someone who knows the worth of these rites, and that is God.

17. (Including *kārikā* 17; 16 in T. E419-21; T84-85) Finally, *saṃkhyāviśeṣa*. In the Vedas there are hymns like the following: "(I) am one, (I) desire to be many." Now the verb form "am", etc., means that the number one (because "am" is singular form) belongs to the speaker. So there must be one speaker of all such Vedic hymns and that is God.

18-20. (Including *kārikās* 18-20; 17-19 in T. E425-26; T85) The work ends with three verses supplicating Śiva to convert the atheists, to save believers, and to receive this work as an offering.

5. NYĀYAPARIŚIṢṬA or (PRA)BODHASIDDHI

This work is a commentary on Vācaspati Miśra's *Tātparyaṭīkā*, but it deals with the topics of Book Five only, i.e., with the futile rejoinders and ways of losing an argument. We have been unable to find anyone to summarize this work. Ganganatha Jha mentions some of its points in footnotes to his translation of *Nyāyasūtras*.[48]

6. PARIŚUDDHI on Vācaspati Miśra's NYĀYAVĀRTTIKATĀTPARYAṬĪKĀ

This great commentary continues the tradition of commenting on subcommentaries on the *Nyāyasūtras*. It is only partially available in published form. It is a very long work and extremely difficult. Various writers have dropped comments about its contents in cerain of their writings, notably Ganganatha Jha in his translations of the *Nyāyasūtras*, *Bhāṣya*, and *Vārttika*.[49]

7. KIRAṆĀVALĪ on Praśastapāda's PADĀRTHADHARMA-SAMGRAHA

Summary by Bimal Krishna Matilal

Page references refer to the edition in Bibliotheca Indica prepared by M. Sivachandra Sarvabhauma and Narendra Chandra Vedantatirtha (B2706). The former covers pp. 1-288, the latter pp. 289-615. Section numbering corresponds to that in the summary of Praśastapāda's work.

I. Substance

Introductory Section (38-39) *Categories.* Praśastapāda talks about 6 categories (*padārtha*), omitting absence. Udayana thinks absence was a well-established category even in the early Vaiśeṣika system, since its existence was implied by the early Vaiśeṣikas' talk about production and destruction of entities as well as the discussions concerning the dissimilarities of other categories.

(41-77) *Final release.* Udayana rejects the Sāṃkhya, Vijñānavāda and Bhāṭṭa conceptions of final release. Final release is the total cessation of suffering. Some (the Buddhists) say that even the self should cease to exist because otherwise it might cause suffering again. Udayana says : if the self exists it cannot be made to cease to exist, and if the self does not exist it cannot cease to exist either.

Right judgments concerning states of affairs destroy false judgments and thereby lead to the cessation of suffering, which state is identical with final release. *Some argue* : The series of sufferings will finally cease because it is a series like the series of burning by the flame of a lamp. *Udayana says* : This argument will hold, provided we maintain that there will be final release of all beings (*sarvamukti*).

Udayana does not subscribe to the view which calls for "combination" (*samuccaya*) of the paths of action and knowledge.

(83-112) *Darkness.* According to some, darkness is a substance because it has a color, dark color, and it has motion. *Udayana says* : Darkness is simply the absence of light and thus belongs to the category of absence. According to Śrīdhara, darkness, though not a substance, is a special kind of color, a positive entity (*bhāva*), because we always have a positive awareness of darkness. Udayana says no. Nobody can apprehend darkness without a prior apprehension of light, and awareness of darkness thus can never be shown to be a kind of "positive" apprehension.

7-9. (118-23) *Universals* (*jāti*). Existence (*sattā*) is the highest generic property. A generic property is a natural, not "accidental" or "external" (*aupādhika*) property of things. If in an individual we find two class properties coexisting, then these two class properties can be generic properties *only when* one class is totally included in the other.

(129-32) *Individuator* (*viśeṣa*). An individuator is not just a quality (*guṇa*), because we cannot discover, as we can in the case of qualities, a universal property occurring in a number of individuators.

(133-35) *Inherence.* Inherence is permanent combination. One relatum is said to *occur in* the other by inherence, and this occurrence is natural, not conditioned by any "external" or "accidental" factor.

That universals exist cannot be proved in the way we can prove, for example, that a substance like a mountain exists. Its proof solely depends upon our cognition of the same pattern in many things. A universal property is eternal, i.e., is never an effect. If a universal like *cowness* could be produced through the production of a cow, then *cowness* would be numerically different in each cow, and then it would no longer be called a universal property.

Individuators are also eternal, since eternal substances are distinguished from each other by their individuators. If there were a time when individuators did not exist, the eternal substances would lose their distinctness.

20. (155-60). The cause and effect relation is usually determined by universal properties. When an entity *a* causes an entity *b*, the property of being the effect of *a* is limited by the universal property in *b*. Using this general principle, Udayana tries to establish that *substanceness* is a universal property.

(161-63) The following are the impediments to a property's claim to be a universal property. (1) A proper universal property cannot belong to only one individual. (2) If a class property is found in all and only those individuals where another class property is found, then they must not be construed as two distinct universal properties. (3) The same individual or individuals cannot be the locus of two universal properties unless one of them is totally included within the other. (4) The category *universal property* cannot be said to possess another universal property because of the infinite regress to which that would lead. (5) If by our admission of a universal property in an entity we run counter to the arguments by which that very entity was posited, we should give up that claim. (6) Inherence combines a universal property with an individual, but inherence itself

cannot be combined by a further inherence; hence there is no universal property in inherence.

25. (169-73) The property of *being elemental* (*bhūtatva*) is not a universal. If something possesses such (sensory) qualities as are apprehensible by an external sense organ it becomes elemental. But then why should the property of *being elemental* not be regarded as a universal property? *Answer*: Because of the third impediment mentioned in the previous paragraph. The property of *being material* (*mūrtatva*) is similarly not a universal property. Being "material" means having possession of a limited, nonubiquitous size.

36. (189-99) *Earth.* The purpose of showing a differentiating mark of earth is to differentiate earth from other objects. This differentiation operates with the help of an inference called "only-negative" (*kevalavyatirekin*), viz. : "An earthly substance is differentiated from other things, such as water, because it possesses earthness (*pṛthivītva*). Whatever is not differentiated from other things in this manner does not possess earthness, e.g., water."

Question : The *sādhya* here is unique to the *pakṣa.* Hence no example can be cited outside the domain of the *pakṣa,* where the *sādhya* property is known to be present. Then how can the required knowledge of the concomitance between the *hetu* and the *sādhya* be obtained ?

Answer : When a unique property of the *pakṣa* becomes the *sādhya,* we simply want to show that this property is not present anywhere else (but only in the *pakṣa*). Thus the inference involved is accepted as a means of proving the presence of an ultimate differentiating mark. Or, Udayana says, infer the following : "The substance in question is called earth because it possesses earthness; whatever is not called earth does not possess earthness, e.g., air."

(207-10) *Color universals and color particulars.* Apart from specific colors like white color, there are proper universal properties like *whiteness* and *redness.* Udayana rejects the view that *white color* itself is a universal and that we do not therefore have to admit a separate universal property *whiteness.* If *white color* itself were a universal property then it would violate the third restriction (cf. p. 590) called *saṃkara,* "intermixture." The same individual, viz., a cow, would have the universal property (*whiteness*) as well as *white color,* and neither of the two coexisting properties can be subsumed under the other entirely. In other words, some things can be white but not cows while some other things which are cows can be nonwhite. Thus, *whiteness* (and not *white color*) is a universal property residing in individual white color patches, while *cowness* is a generic property residing

in individual cows. These two generic properties do not coexist.

If there are different shades of white color, we can admit different lower universal properties residing in those shades and to be subsumed under the higher universal property *whiteness*.

(219-68) *Atomic constituents*. An earthy substance of ordinary size, such as a pebble, can be divided into parts and those parts into further smaller parts, but this process of division cannot go on for ever. This process comes to a stop when we reach the element having the smallest size or magnitude, the elements called atoms. If the process did not come to a stop we would have to admit that a mustard seed and a mountain are both made out of innumerable parts or constituents, and since there would be no difference in the numbers of their constituents they should be of the same size !

Someone says : The particles called triads (*truṭi*) are perceptible and they are known to have the smallest size. Hence the division of substances into parts should come to a stop when we reach triads. Udayana says no. Since the particles called triads are perceptible they must be bodies composed of parts too. We cannot perceive something, some substance, which does not have a body made of parts in this way.

Another person (*Śrīdhara*) *says* : The decrease of size from small to smaller and still smaller must come to a rest because that is how all types of size behave. For example, the increase of size from big to bigger to still bigger comes to a rest when we reach the biggest, i.e., a ubiquitous thing. Udayana thinks that this argument is wrong because it rests on a vicious circle. If we can prove that there is such a thing as the biggest size we can prove that there is also the smallest size, and vice versa.

Whatever is a product substance is also an *embodied* substance. And if a substance has a body it is divisible into parts. Thus, since atoms are nonproducts, they are without bodies, i.e., indivisible.

Human bodies, etc., are made of earth. Although it is usually said that the human body is made of five physical elements (earth, water, air, fire, and *ākāśa*), Nyāya regards only earth as the causal substrate of human bodies, other elements being accessory causal factors.

Objection : A dyad is made out of two atoms. Why accept dyads ? The particles called triads are perceptible masses and hence they are divisible into parts. Let these constituent parts be atoms only and then we would not need to accept another class of intermediate elements called dyads. *Answer* : A particle is a substance with parts and hence its immediate constituents must also have parts.

Atoms have only size (*parimāṇa*), but no parts (*avayava*). So we need some intermediate elements which have size as well as parts. Thus dyads. If you say that since dyads have parts their parts will have parts too, we say no. Your argument will lead to infinite regress, to avoid which we have accepted the partless atoms.

37. (265-80) *Water. Viscidity* (*sneha*) is listed as a quality of water. *Some say* : *viscidity* is not a quality of water because it is only found in oil and butter; it is a type of universal property just as *milkness* is a universal property. Udayana says no. There is gradation of viscidity, viz., some things are more viscous and some less. Such decrease or increase is possible only in the case of some quality, not in the case of a universal property. We cannot say that one body is more cow and the other is less cow, for instance.

Milkness is a universal property, but it does not exist in atoms of milk. But *viscidity* as a quality must exist in the atoms which produce viscous substances such as oil. A universal property like *cowness* also does not exist in the atoms of a cow. *Cowness* is a universal property which is manifested in gross substances called cows through some conditions (*upādhi*). Only such universal properties as *earthness* or *waterness* are present in earth atoms or water atoms.

38. (281-98) *Fire.* Concerning the visual organ, some say : The visual organ does not grasp an object by coming out to reach that object. (1) The object grasped by the visual organ lies detached from the place where the body it belongs to is located. Moreover (2) the visual organ can grasp something bigger than its own size. (3) It grasps the nearby branch of the tree and the distant moon at the same instant. (4) It can grasp an object lying behind a solid but transparent crystal ball.

Udayana rejects all these arguments. (1) Just as the lamp can reveal an object lying apart by reaching it, so the visual organ can reveal an object lying at a distance by reaching it. (2) The same lamp example answers the second objection. (3) The fast-moving character of fire (i.e., light) accounts for the illusory notion of simultaneity of the seeing of a nearby branch and the distant moon. (4) A transparent solid does not by nature obstruct the passage of light.

Some say : As soon as the ray comes away from the eyeball it becomes identified with the light rays outside and then this identified ray reaches the object to reveal it. Udayana says no. If the ray of the eye were identified with the external light rays then we would have seen objects lying behind our backs.

39. (298-312) *Air.* Air is not amenable to perception, not even to tactile perception. Other objects which can be grasped by both the sense of sight and the sense of touch are not like the substance air. One can grasp other qualities — such as number, size, separateness, contact, and disjunction — belonging to these perceptible substances. But with regard to air this does not hold. The parallel qualities of air can only be inferred through various marks. Thus air is also not perceptible, but inferrible from its quality — touch, which we directly perceive through our tactile sense.

40. (313-31) *Creation.* If the existence of God cannot be proved, Praśastapāda's theory of creation and destruction will not hold. How to prove the existence of God? We prove Him by inference : "Things like mountains are products and hence caused, but we do not see any corporeal and intelligent agent constructing them. These entities must have been constructed by an intelligent agent, and such an intelligent agent is none but the omniscient God."

Some logical difficulties with regard to the above proof are raised and answered. (1) A product substance such as a pot has a nonomniscient being as its agent. So how can you prove through these known examples that an omniscient Being is the causal agent of such supposedly product substances as mountains and sprouts? *Answer* : Omniscience and the property of being an intelligent agent are not contradictory properties, although we cannot cite an example where we actually see them coexist. A person born blind does not realize that color and touch can coexist in an earthly substance. But this would not make these two properties incompatible in any way, so that they could never coexist. Touch may coexist with color as in earth, and may not coexist with color as in air. Similarly, an intelligent may be either nonomniscient or omniscient.

(2) Omniscience implies eternality of knowledge. But *eternality* and *knowledgeness* are seen to be incompatible properties. *Answer* : No. Although *eternality* and *materialness* (*mūrtatva*) are ordinarily seen to be incompatible, i.e., noncoexistent, as in a pot or a cloth, there are atoms which are both eternal and material. Similarly, even if ordinary, i.e., human, knowledge is noneternal, there is God's knowledge which is eternal.

Udayana notes that details of the arguments to prove the existence of God can be found in his *Nyāyakusumāñjali* and *Ātmatattvaviveka.*

41. (332-48) *Ākāśa. Some say* : Sound is a quality of air. Udayana says no. Sound cannot be a quality of something which

is also the substratum of touch. Why ? If sound belonged to air, the auditory sense would be made of air. And if so, the auditory sense should be able to grasp touch at the same time.

42. (348-58) *Time.* Some teacher (Vardhamāna says this teacher is Vyomaśiva) has said : The notion of oldness in an aged body (compared to a young body) is due to the body's connection with a comparatively larger number of movements of the sun. The sun's movements reside in the sun but the old body in question lies far away. Thus, an ubiquitous substance, time, is posited to connect the sun's movements with the body in question. Although a self or *ākāśa* are ubiquitous, they cannot account for the connection that is required here, since both of them are loci of some sort of specific (*viśeṣa*) quality (i.e., the self is the locus of judgment, and *ākāśa* the locus of sounds).

Udayana is wary of this argument. Both a self and *ākāśa* cannot just by their presence transfer the movements of the sun to the distant old body because they cannot transfer anything from any object to another object. Thus, the blue color of a thing at Banaras cannot be transferred to a crystal ball at Patna although the selves and *ākāśa* are supposedly connected with both the objects. Time is posited as a substance whose particular function is that of transferring the larger number of movements of the sun from the sun to the old body in question, and that is why the body is called old compared to young body to which only a smaller number of movements of the sun could be transferred.

43. (358-61) *Place.* The spatial position of an object has in fact to be explained in terms of its different connections with the sun rays. And thus, as above, an ubiquitous substance, place, is posited to account for the connection of the sun rays with the other distant, medium-sized objects.

44. (361-88) *Self.* The awareness "I am such-and-such" is to be explained by positing a substance called self. A self has many qualities.

A Buddhist argues : The notion of a permanent self is a myth. Everything is in a flux. Conscious states are in a flux, one happening after the other in a series. How ? Whatever exists is momentary by nature because to exist means to do something or to function in some way or other. There is no such thing as potentiality. If something is competent to produce anything it should produce it at that instant. If not, it would never produce it. There is no waiting for one who is competent.

Udayana answers this objection briefly. *Existence* is a bad *hetu* for the Buddhist's argument, because its invariable concomitance

with the *sādhya momentariness* cannot be established beyond doubt as far as Nyāya is concerned. Since it is doubtful whether we can successfully rule out the possibility of a counterexample, the said *hetu* is conclusive. There is potentiality as well as actuality. A seed can potentially produce a sprout but it does not always do so unless attended by other accessories. For details of these arguments, Udayana refers to his *Ātmatattvaviveka* and *Nyāyakusumāñjali*.

II. *Quality*

(399-407) *Qualityness* (*guṇatva*). It is admittedly difficult to distinguish the group of 24 qualities from motion (*karma*). Bhāsarvajña denies that there is any distinction. Udayana defends the distinction. Motions are something we directly apprehend as movements. A motion produces two opposite results — contact and disjunction of bodies. None of the 24 qualities has this power to produce opposite results. A substance might produce such a pair of results; for example, contact of finger with tree causes contact of hand with tree — here *tree* is a substance which is the cause where contact and disjunction is produced. A substance is distinguished from a motion in that the substance can produce the said results only when dependent upon some motion, while motions can produce them independently.

A sensory quality is not identical with the object or substance that has it. Blue color is different from the blue-colored thing. *Some say* : A quality like color is produced along with its substratum, the pot say, and is destroyed when the substance is destroyed. Udayana rejects this view. According to the Vaiśeṣikas, there is a logical (also temporal) sequence between the production of the substratum cause, i.e., the pot, and the production of the color of the whole pot. The color of the pot is a caused event, a product, of which the pot is the inherence cause (*samavāyikāraṇa*). Thus, the pot must have preceded, at least by a moment, the production of the color of the whole pot.

84. (424-40) Some hold the theory of *piṭharapāka*. This theory maintains : When an earthen body, a clay pot, is baked, the body gets some new qualities such as its new color. The previous color is destroyed and the new color is generated while the body remains intact.

Others hold the theory of *pīlupāka*. That theory maintains : When the earthen body is baked, the previous body (i.e., the whole) is dissolved into atoms because of the body's contact with fire particles,

and these atoms coming into contact with fire atoms get new qualities such as a new color (red color). Then out of the combination of these atoms (whose qualities have changed) we get a new body, a red pot.

The philosophical motivation behind this view is this : We can thus safely maintain the distinction between the quality and the substance that has the quality. And this distinction will help us to understand the nature of the self as distinct from its qualities.

Fire atoms are extremely light, weightless, and have impetus (*vega*) and hot touch. Thus, the impact of these atoms can very well break the body that is being baked. Further contact with fire helps to recreate the body out of the combination of the atoms. Splitting of a solid body in contact with fire is sometimes perceptible. Shrinking of a body in fire also indicates that we have got a new body out of the constituents of the old body.

85. (441-61) *Number.* Bhāṣarvajña rejects the notion of number as a separate quality. For him, unity or oneness means identity of a thing, and diversity, such as twoness, is the distinctness of the nature of things. Udayana refutes this view : Identity of a thing is unique to itself, but the notion of unity is found in each different thing at the same time. Thus we say "one pot" and "one cloth". The identity of a pot is different from the identity of a cloth, but both appear to have the property *oneness*, i.e., the property of being counted as one. And distinctness is not the same thing as diversity, such as *twoness* and *threeness.*

Some say: The number two and other numbers are universal properties like *potness.* Even if you accept *two* as a quality, you will have to accept a *twoness* universal. Thus it is simpler to accept *twoness* as a universal property rather than in addition to a quality.

Udayana says no. It is not contradictory to accept *two* as a quality and another entity as *twoness*, the universal common to different qualities of *two*. Besides, if *twoness* were a universal property present in any two substances it should be subsumable under *substances* or *existence.* But in fact *twoness* appears to be coextensive with *substanceness.* Two coextensive properties cannot be construed as two different universal properties (see the second restriction, page 590).

Or, Udayana says, number is a quality which accounts for our counting objects.

Two or duality is generated by enumerative cognition (*apekṣābuddhi*), i.e., a type of judgment in which we cognize objects separately but put them together at the same time. "This is one (and)

that is one" is the verbal expression of an enumerative cognition. *Two* is thus a transitory quality; it is destroyed as soon as the enumerative cognition (which being a judgment cannot persist very long) is destroyed. Udayana criticizes Śrīdhara's view and some other views regarding this point.

The judgment "there are two things" is generated at the very moment when *two*, the quality, is destroyed. But this leads to the question whether the qualifier (*viśeṣaṇa*) can be destroyed and appear at the same time as the adjective in a judgment (viz., the judgment "there are two things"). Udayana says it is all right. An adjective *x* of *y* is that which is the delimitor of *y* as well as coexistent with *y* in the same locus. It is not necessary that the adjective *x* be physically present when we have the cognition "*Y* is qualified by *x*." To cognize perceptually that some person is qualified by the name Devadatta we do not have to perceive the name through our sense organ.

Śrīdhara says: The notion of *two* arises out of a simple enumerative cognition; the notion of *three* arises out of the notion of *two and one*; the notion of *four* is likewise to be explained. Udayana rejects this view because it would be difficult to explain in this manner the origin of the notion of many (*bahutva*) in such judgments as "there are many trees here."

86. (463-71) *Size*. The size of an atom cannot cause anything, not even another size. The number of atoms causes the size, a destructible size, in the dyad. The size of some object depends not only upon the size of its constituents or upon the loose contacts of its constituents but also upon the number of constituents in some cases. Out of five meatballs of the same size two produce a meatball which is smaller in size than the meatball produced by the other three.

87. (471-76) *Separateness*. Bhāsarvajña holds : The quality of *being separate* is identical with *difference* which is otherwise called *mutual absence*. Udayana disagrees. "A pot is not a cloth" is not synonymous with "a pot is separate from a cloth." The use of the ablative in the second case indicates the distinction between their meanings. Even *possession of nonidentical properties* (*vaidharmya*) is not the same as the quality of *being separate*.

88. (477-87) *Contact*. Contact is central to the Nyāya-Vaiśeṣika theory of creation. Contact between parts causes a body, a substance. Contact between fire and earth particles gives rise to a new color in the body. Loose contact between parts causes a new size, a bigger one. Impact, pushing, and throwing, which are just varieties of contact, generate motion. Since the theory of

momentariness of everything, as well as the theory of momentary modification, is not acceptable to the Vaiśeṣikas, the quality *contact* is an essential postulate for them to account for creation and destruction of objects.

89. (487-504) *Disjunction.* Bhāsarvajña thinks that disjunction is just lack of contact, not a separate quality. Udayana says no. When out of two bodies in contact one is destroyed, we may say that the contact is also destroyed, but nobody would say that the bodies have been disjoined. The destruction of a quality may be caused either by the appearance of an opposite quality in the same locus or by the destruction of the cause of the first quality. Now, when due to a motion in the finger the contact between the finger and the tree is destroyed, the contact between the hand and the tree would not be destroyed because the hand is not in motion. The motion of the finger exists in the finger and the contact of the hand with the tree exists in the hand, and thus, the motion and the contact not being cooccurrent in the same locus, they cannot be related by way of being the destroyer and the destroyed. To avoid this absurd consequence we have to posit an opposite quality, viz., disjunction, which appears in the hand and thereby destroys the contact between the hand and the tree. The motion in the finger causes disjunction of the finger from the tree, which in its turn causes disjunction of the hand from the tree, and this disjunction destroys the contact between hand and tree.

Bhāsarvajña might argue: Motion can destroy the said contact even if it is not occurrent in the same locus. Udayana finds no reason to narrow the scope of the rule that a quality can destroy another opposite quality provided the two qualities are cooccurrent in one locus.

90. (505-09) *Farness and nearness.* These should not be regarded as two qualities, says Bhāsarvajña. "An object lies near" means that it has a comparatively small number of contacts (apparently among the intervening space-calibrations) and "an object lies far" means that it has a large number of contacts.

Udayana says no. The required small or large number of contacts can also be ascribed to the person with regard to whom the object is near or far. But the *notion* of "being near" or "being far" arises with regard to the object only.

91-93. (510-18) *Judgment. Tarka* is reasoning through counterfactual conditionals. *Tarka* is more than a doubt (*saṃśaya*) but something less than a certitude. Why was it not mentioned by Praśastapāda ? *Answer* : Because *tarka* is a variety of error (*viparyaya*).

95. (520-24) *Error. Some say*: Error is due to the nonapprehension of difference. Udayana rejects this view in favor of the Nyāya view that error is due to the apprehension of a different property in a given locus.

99. (529-45) *Perception*. In the case of direct or pure sense perception (*ālocana*) the object may be grasped as such along with its universal property. But propositional (*savikalpaka*) perceptual judgments should be preceded by a cognition or conception of the qualifier. Nobody apprehends something to be a horned object without a prior cognition or conception of the horn. *The Buddhists say*: Construction (*vikalpa*) is not perception in the proper sense of the term. It is at the level of imagination comparable with the imagination of nonexistent pairs in the horizon by a person suffering from an eye disease. Udayana rejects this view on the ground that universal properties, substances, etc., are real entities, not fictions.

100-04. (545-63) *Inference*. Invariable concomitance or *vyāpti* means a relation without any nonessential condition (*upādhi*). How is this relation ascertained ?

According to Dharmakīrti, determination of identity as well as of the cause and effect relation leads to the determination of pervasion or concomitance. *Udayana says* : This is true only when the inferential relation is limited to either identity (i.e., class inclusion) or causal relation. But the inferential relation in a good many cases may be neither. If we infer tomorrow's sunrise from today's sunrise, there does not seem to be any causal relation between them. The Buddhist has himself admitted that though the taste and the color of a piece of fruit are not related as cause-and-effect, one can be inferred from the other all the same.

(564-68) *Condition* (*upādhi*). A "condition vitiating an inferential relation" is one which pervades the *sādhya* but does not pervade the *hetu*. The pervasion relation is usually grasped by external perception. Since the recollection of names is possible through other means, we do not need, in many cases, to have a nonpropositional perceptual judgment preceding the perception of pervasion.

105. (570-83) *Verbal testimony*. With regard to verbal testimony we have first to decide whether it gives rise to true judgments or not. Udayana says it does. Otherwise statements of facts in language would be impossible. Although there is no natural relation between a word and its object, a word can *express* an object.

But our judgments deriving from verbal testimony are a ctually a kind of inference. The inference in question here is as follows: These word meanings (*padārthāḥ*, "objects", (presumably in a sen-

tence) are mutually related, because memory of them is occasioned by hearing words which are syntactically related and semantically compatible.

The Naiyāyikas think that verbal testimony is a separate means of knowledge, not inference. *They argue* : The sense of the *sādhya* in the above inference cannot be explained. If it is meant that the objects are mutually related in actuality, then it would follow that a falsehood uttered by an untrustworthy person would be true. To answer this criticism of the Naiyāyikas, the Vaiśeṣikas insert a qualification in the *hetu*, viz., being uttered by a trustworthy person. They hold that verbal testimony is only a kind of inference.

Question: Is the validity of judgments intrinsic or extrinsic? *Answer*: Validity is not a natural property, and hence not a proper universal because it can be subsumed neither under judgmenthood (*jñānatva*) nor under existence (*sattā*). Validity is a *conditioned* property. It arises in a judgment not automatically but due to some condition external to the group of causal conditions that produces the judgment in question. *The opponent* (*a Mīmāṃsaka*) *says*: As soon as a judgment is generated its validity (if it is valid, that is) is also generated by the same causal conditions. Thus validity is intrinsic. But the lack of validity in a judgment is due to some defect (*doṣa*) in the causal situation. Udayana says no. If the lack of validity is due to the presence of some defect, validity would then be due to the absence of that defect. One cannot neglect this as merely a negative argument because the said defect may appear in the form of an absence (viz., noncognition of the specific property in the case of doubt, which is an invalid judgment), and thus the absence of such a defect would be a positive condition. So, Udayana concludes, validity is extrinsic because in our first judgment about a new object it is possible to entertain a doubt with regard to the validity of that judgment. If validity were intrinsic, the arising of such a doubt would not be possible.

106. (584-86) *Gesture* (*ceṣṭā*). Physical gestures can generate particular cognitive states but they are to be included under inference. Physical gesture is, thus, not a separate means of knowledge. Udayana says there are two types of relevant physical gestures. One is conventionally expressive of some meaning while the other does not have any regular meaning. The first is more or less like a script, which recalls the word which, in its turn, is expressive of a meaning. The second is not concomitant with any particular meaning, and thus it does not always generate a propositional judgment as a regular sentence does.

107. (587-95) *Comparison.* The statement "a *gavaya* is like a cow" helps us to identify the object *gavaya* and to call it by the name "gavaya." *The opponent says*: Here the similarity known from the statement becomes a means of knowledge by which we are able to call the *gavaya* a "gavaya." Hence it is a separate means of knowledge. Udayana says no. Since it is wrong to construe from the said statement that the essence of a *gavaya* it to be similar to a cow, we are forced to construe the essence of a *gavaya* as *gavayaness*, a property which is indicated (through secondary meaning, *lakṣaṇā*) by the phrase "like a cow." Thus the statement itself is the means of knowledge here, and this, as we have seen, is only a variety of inference.

110. (595-602) *Absence.* Absences are sometimes perceived and sometimes inferred For example, the absence of pot is perceived on the ground because the senses are in contact with the ground while we have the judgment "there is no pot on the ground." Sometimes absence, e.g., of Caitra in that room, is inferred from the reason (*hetu*) that Caitra is not perceived while the interior of the room is perceived. *The Mīmāṃsakas say*: This last is not an inference because the reason, nonperception of Caitra, is not actually a property of the *pakṣa*—the room. The purported inference is thus a separate means of knowledge, say the Mīmāṃaskas, called nonapprehension (*anupalabdhi*). Udayana rejects this view. Nonapprehension is a property of the self which cognizes the room. Thus the reason is not entirely disconnected from the *pakṣa*. So, the process of inference shown above is faultless. The ground, which lacks pot, determines the nonapprehension of pot.

How can an absence be in contact with the sense organ to make the perception of an absence possible? Udayana says that the capability of a sense organ is actually determined by what we perceive through it. If a particular sense organ is responsible for our perception of the counterpositive, a pot, it is also responsible for our perception of the corresponding absence.

The absence of pot is a separate entity, not identical with the ground where the absence appears. If the judgment "there is a pot on the ground" is interpreted as reporting that the ground is characterized by the presence of a pot, then the judgment "there is no pot on the ground" may be likewise interpreted as reporting that the ground is characterized by absence of pot. The presence of a pot is just a pot, which is the counterpositive of the absence of pot.

There are two main types of absence, relational absence and absence of identity. Relational absences may be of three types,

prior absence, posterior absence, and constant (*atyanta*) absence. The absence of pot on the ground is a constant absence because we cannot say that the pot and the ground can be *constantly* in contact. A constant absence is without origin and destruction and therefore is eternal like a universal property.

112-14. (603-05) Members of an argument. A full-fledged argument has five members. Our doubt, whether supposed or real, with regard to the truth of the conclusion cannot be totally removed without invoking all five members.

When the word meanings and their interconnections are known, verbal knowledge is generated. Words, by themselves, have no power to generate this knowledge. Thus, in a modern poem, the poet first thinks of the "meanings" (objects) and their interconnections and then composes a sentence.

(605-08) *Some say*: A word is an impartite *sphoṭa*. How can we talk about its parts or "members"? *Sphoṭa* is an impartite whole different from each phonetic element. There is sequence in the phonetic elements, there is sequence in our judgments of them, and there is sequence in our recollections of them. But *sphoṭa* is a sequenceless unity grasped by perception. Udayana rejects the notion of *sphoṭa*. The notion of unity is only conditional. We have such a notion because the different elements, in fact, generate only one indivisible meaning.

Here the commentary breaks off.

30. APARĀRKADEVA or APARĀDITYADEVA

According to S. Subrahmanya Sastri[1] this author was a monarch who ruled in the Konkan in the early part of the 12th century. He quotes P. V. Kane: "A grant dated Śaka 1049 (+ 78 = 1127) of Aparādityadeva who donated a village named Vadavali.... He was the son of Anantadeva, grandson of Nāgārjuna and traces his descent to Jimūtavāhana son of Jimūtaketu famous for his self-sacrifice. In this inscription (in which the grant is mentioned) Aparādityadeva is styled Śīlāhāraṇarendra and Jimūtavāhanānvaya-praśasta. It appears that the date of Aparādityadeva I referred to in these grants falls between A.D. 1115 and 1130. We know from Śrīkaṇṭhacarita of Maṅkhaka that king Aparāditya of Konkan sent Tajakaṇṭha on mission to an assembly of learned men in Kashmir during the reign of Jayasiṃha of Kashmir (A.D. 1129 to 1150), when *Aparārkaṭīkā* was introduced into Kashmir and recognized as an authority there."

"It is probable that Aparārka's Yājñavalkya Smṛti Vyākhyā was composed about A.D. 1125."[2]

Subrahmanya Sastri thinks Aparārka was an Advaitin by persuasion on the basis of remarks the author makes in the *Yājñavalkyasmṛtivyākhyā*,[3] but in the *Nyāyamuktāvali* he condemns Advaita. It is interesting that nowhere does Aparārka mention Śaṃkarācārya, though he does quote from Vācaspati's *Bhāmati* and from Maṇḍana Miśra's *Brahmasiddhi*.

As mentioned earlier, this author's *Nyāyamuktāvali* is of especial interest for its comprehensive treatment of the contributions of the Bhūṣaṇakāra, Bhāsarvajñā, to the Nyāya tradition. These will be rehearsed again in the following summary, based on material prepared by Pandit Subrahmanya Sastri.

NYĀYAMUKTĀVALĪ on Bhāsarvajñā's NYĀYASĀRA

Summary by Pandit S. Subrahmanya Sastri

"E" references are to the edition by S. Subrahmanya Sastri and V. Subrahmanya Sastri, Madras 1961 (B2510). The work is untranslated. Sections are numbered to correspond with the *Nyāyasāra* summary, pp. 478-490.

1. (E2-5) The first section deals with the preliminaries of a work such as the invocation (*maṅgala*). The importance of stating the purpose of a work is emphasized. An opponent questions whether definitions of "instrument of knowledge" and the other categories should be given, charging that definitions are useless and lead to infinite regress since they in turn require further definitions, etc. This is answered by noting that definitions are required only for terms which produce doubt, and that there is no infinite regress since a definition demarcates its definiendum and also itself.

2. (E5-9) Definitions are given in the *śāstras* (such as Nyāya) for the sake of people who are confused by the mutually contradictory definitions given by bad Naiyāyikas. Though there cannot be any doubt or illusion for those who have made a thorough study of the Upaniṣads, yet there *are* people who have doubts and illusions and for their sake *śāstras* are written. Hence there is no futility of Nyāyaśāstra. Moreover, even those who have studied the Upaniṣads should study the *śāstras*, in order to instruct others and to defend their convictions.

3. (E13-23) *Objection*: The judgment that expresses a doubt must be either one or many. Now if it is one judgment it is not doubtful. E.g., "This is a post and a person" is not a doubtful judgment. But

if it is said that the judgment denies the two alternatives, then the judgment should be "this is neither a post nor a person"—and this is not a judgment of doubt either. On the other hand, if the doubt is expressed in two or more judgments, they must arise in succession. Then both the judgments might well be true, each at its respective time of expression.

Answer: The judgment expressing a doubt is a single judgment. Its normal form is "This is either a post or a person (but I don't know which)," and here the "or" is of the exclusive variety, signifying incompatibility between the two possibilities.

4. (E23-26) Indefinite knowledge (*anadhyavasāya*), imagination (*ūha*), and *tarka* are all to be included within the category of doubt. Aparārka argues that Gautama really meant to include it within doubt, and that the reason he gives it a distinct mention is because he is anxious to show how it assists inference.

Doubtfulness (*saṃśayatva*) is a universal, since it is a property possessed by indefinite knowledge, imagination, and *tarka*.

5. (E26) Turning to the category of error, Aparārka treats alternative views at great length. First he takes up the Prābhākara view of error, specifically analyzing the illusion of the double moon. The Prābhākara (Aparārka cites Śālikanātha Miśra) thinks that the error results from our failure to notice the difference between what we remember and what we perceive. Timirāri is cited with approval in rejecting this account. It would be impossible to explain our purposive activities directed toward illusory objects on the Prābhākara account. To explain these activities we must assume that the percipient does recognize a relationship between the object (perceived) and the property (remembered, according to the Prābhākara).

The Prābhākara is made to reply with some arguments of his own against the Naiyāyika's *anyathākhyāti* view. First, the Nyāya view implies that the apparent content of an erroneous judgment is not its real content. But the Prābhākara does not understand the distinction; surely the content of any judgment is what it is about, and it is just redundant to say it is "real" as well—of course it is. Second, the causal aggregate which produces valid judgments are taken by the Naiyāyika to be capable of producing invalid ones as well. But this violates the causal principle. *Aparārka answers as follows*: As for the first point, the Prābhākara just does not admit that error ever occurs, but this is absurd. As for the second, it is not the Nyāya view that the same aggregate produces invalid as well as valid judgments; when invalid judgments are produced, there are

defects in the organs of knowledge, and thus the causal factors do differ.

(E37-39) Some say that erroneous judgments have no content at all (*nirālambana*). But if so it will be impossible to distinguish one erroneous judgment from another—or better (says the "new"—Bhāsarvajña's—school), it will be impossible for an erroneous judgment to be about something which has the same form as something known validly.

(E39-42) Others say that the content of an erroneous judgment is nonexistent (*asat*), since we have erroneous judgments about hare's horns and the like. *Answer*: Well, of course the silver (in the shell-silver illusion) is not existent in the place it is judged to be, but it does exist, so the analysis cannot be correct.

Some other views, including the *ātmakhyāti* view of Buddhists, are reviewed and rejected.

(E46-55) Aparārka saves most of his energy for the Advaitin, however. The Advaita view is that the content of an erroneous judgment is neither real nor unreal. But this is impossible, says Aparārka; if something is not one, it must be the other. Oh no, says the Advaitin; there are several kinds of reality (*sat*). Some Advaitins say that absolute (*pāramārthika*) and empirical (*vyāvahārika*) are the two levels of reality ; others say that these two together with the phenomenal (*prātibhāsika*) level constitute three levels of reality. The difficulty with both of these views lies in the fact that the Advaitin defines "reality" as Brahman, and as there are no differences in Brahman there can be no differences among levels of reality.

There are Advaitins, however, who reject the levels of reality interpretation, holding that Brahman is the only reality and that an empirical object, e.g., a pot, has no reality whatsoever, but appears to have because Brahman is superimposed on it. Aparārka answers this by pointing out that it is easier to accept the Nyāya notion that silver is superimposed on the shell than to accept the Advaita notion that Brahman is. Furthermore, the Advaitin who adopts this line will have difficulty explaining the sublating judgment we form when we discover that the shell is not silver. We say "there is no silver here at all, and never was." But on the Advaita view an extraordinary (*alaukika*) silver *is* present in (on) the shell as long as the illusion persists—so what is it that is being denied in our sublating judgment?

(E55-62) The Advaitin appeals to the hypothesis of *avidyā* to provide the mechanics for the production of the extraordinary silver—

but it is simpler to accept the Nyāya *anyathākhyāti* view, which serves to explain superimposition equally well and at less cost. The Advaitin is made to present several arguments for *avidyā* (i.e., positive ignorance), but these are rejected. E.g., the hypothesis of the witnessing consciousness (*sākṣijñāna*) is discussed and set aside. The Advaita turns to attack the Nyāya theory of absences, which is defended.

(E62-65) The Advaitin now asks the Naiyāyika how he proposes to explain the contents of dreams, and Aparārka indicates that Nyāya treats dreams precisely as other types of error. Other accounts of dreams are examined and refuted.

6. (E65-86) The discussion turns to the nature of validity. Aparārka refutes alternative notions of validity, such as the Advaitin appeal to sublation and the Buddhist's to the fruitfulness of subsequent activities, and defends the view that the cause of validity is external. He raises the question about the infinite regress difficulty for a view which makes validity dependent on external factors, and says there is no difficulty since the question of validity does not arise unless there is some doubt about the judgment's practical purport. He mentions Maṇḍana Miśra's alternative way out, according to which the regress stops at the point where the validity of a judgment is not questioned.

In discussing the question of intrinsic vs. extrinsic validity Aparārka mentions the view of Mahāvrata, who defends the intrinsic validity doctrine. According to Mahāvrata a judgment intrinsically establishes the true nature of the object it is about. This is refuted. We do sometimes form judgments which we subsequently find to be false. Therefore a judgment can only establish the nature of its object under the condition that there is absence of sublating judgments. But this leads to the extrinsic validity view.

(E86-89) Vācaspati Miśra's view is said to be that in order to stop the regress we should admit that two kinds of judgments are self-validating, namely inference and internal-organ perception. This way out is rejected by Aparārka.

(E89-104) The discussion moves on to definitions of experience (*anubhūti*) and memory, following Bhāsarvajña's text. Memory is valid when its content is correct, but it is nevertheless not classified as a kind of true knowledge (*pramā*) because its validity is dependent on a previous judgment of perception, etc.

Alternative views on these topics are refuted. The Bhāṭṭa hypothesis of knownness (here, *prākaṭya*) as a property produced in objects when they are known is presented and rejected. The

Sautrāntika and Vaibhāṣika views, featuring their characteristic views of *sākāra* (consciousness having an intrinsic form) and *sārūpya* (similarity of form between idea and object), are presented and discussed. A view attributed to Uddyotakara, that that which immediately precedes a valid cognition is what is the instrument of knowledge, is objected to on the ground that if it were true we might identify the contact of the visual organ, etc., as the cause of the perception of the color of a whole even when we can prove through inference that it is not that contact, etc., which is the cause. And everyone knows that though the contact of axe with tree is that which immediately precedes the felling of the tree, nevertheless the axe itself is spoken of as a cause.

Aparārka in conclusion sets forth the view expounded in the *Nyāyabhūṣaṇa*, which is that the cause of an action is that which is the direct agent (*sākṣātkartṛ*) with respect to it.

(E120-26) In connection with Bhāsarvajña's discussion of the objects of perception and the relations through which they become known, Aparārka initiates an extended discussion of objects. He defends the Nyāya view of wholes and parts, and becomes involved in a discussion about variegated color as a result. Other Naiyāyikas hold either that variegated color is the collection of the many colors constituting it, or else that it is a completely distinct color. Aparārka holds, instead, that while variegated color is a distinct color, it is brought about in a cloth, say, by the colors of the different threads, and furthermore the cloth participates in the properties of all the various constituent colors. To this view the difficulty of crossconnection of universals (*jātisaṃkara*) is raised, but Aparārka is unimpressed; he does not accept crossconnection as a fault.

(E143-59) Explaining that Bhāsarvajña allows universals and qualities to be perceived directly, Aparārka takes occasion to report the view of the Bhūṣaṇakāra on qualities and other categories. Number, size, separateness, disjunction, farness, and nearness are not qualities according to this writer, as opposed to Kaṇāda. These items are taken up in order. Number includes both unity and plurality ("one" and "more than one"); but unity is nondifference and plurality is difference, and so number cannot be a quality. Udayana's *Kiraṇāvali* is quoted in opposition to this view. Udayana holds that numbers, like other qualities (e.g., color) are capable of producing results both like and unlike themselves. Thus when two single atoms combine to produce a dyad, it is Udayana's view that the two unities produce a duality, for otherwise the larger size of the dyad could not be explained. This larger size cannot be due to the

sizes of the constituent atoms, for there is a rule that a size of a given type can only bring about another size of the same type. The Nyāyabhūṣaṇakāra is reported as rejecting this rule, however, and thus being able to explain the increase in size of dyads, etc., as due to the size of the parts, not their number. The Bhūṣaṇakāra's final view about number is that it is some kind of property (*dharma*) akin to a universal (*sāmānya*).

The *Nyāyabhūṣaṇa* is quoted: Some people deny size to be a quality on the ground that "bigger," "smaller," etc., are locutions indicating that they are attributed to things only as relative to other things. Aparārka says that this view is indeed the Bhūṣaṇakāra's own, and that his notion is that size is a matter of conjunctions with points in space (*deśa*).

Separateness is not a quality, since if two things are separate they are in that respect different, and thus they do not have a quality in common.

Disjunction is not a quality. Disjunction is nothing but absence of contact under circumstances when contact is appropriate. Vyomaśiva is quoted in support of this view.

Farness and nearness are not qualities for the same reason that size is not, namely, that the locutions seemingly requiring their postulation really merely require appeal to certain relative respects involving the number of contacts between things and space and time.

Impetus (*vega*) is also not a quality for the same reasons.

(E160-65) The Bhūṣaṇakāra proposes to include the Vaiśeṣika category of motions completely under the category of quality. Aparārka also defends the perceptibility of motions against Śālikanātha. Where Vaiśeṣikas construe motions as sometimes the cause of contact, Aparārka argues that the contact which is the cause of that motion is itself the cause of the subsequent contact. Again, the view of Vaiśeṣika that motions are sometimes produced by impetus is questioned, since impetus has been questioned (above) as a distinct quality.

(E167) Advaitins hold that pleasure (= bliss) is identical with consciousness itself and thus is self-evident. This is wrong; we perceive the difference between consciousness and pleasures.

(E176) Inhérence's perception is due to the combination of the sense organ with *adṛṣṭa*.

(E177) Contact is defined as "relationship between things which have a separable (*yutasiddha*) existence." Udayana to the contrary, therefore, there can be contact between all-pervading (*vibhu*) things such as time and *ākāśa*, for they are separable existents.

However, there are no disjunctions between eternal all-pervading things.

CHAPTER TWO

10. (E186-91) The force of the "according to their very natures (*svabhāvatas*)" clause in Bhāsarvajña's definition of inference is to exclude the Buddhist theory that invariable concomitance is restricted to relations of identity and causality.

How is pervasion known? After a lengthy discussion Aparārka contends that it is cognized by internal-organ perception aided by *tarka*.

12. (E196-203) In glossing Bhāsarvajña's division of inference into *dṛṣṭa* and *sāmānyatodṛṣṭa*, Aparārka gives an extended defense of universals. A question is raised as to whether a universal pervades only its own loci or the whole universe. Aparārka inclines to the first view, but argues that the second is all right too. Opponents of the second view hold that if universals pervaded everything then a pot would be a cloth, but this is answered by pointing out that while *potness* is present in everything (on the view in question) by occurring there, it is present in pots, and not in cloths, by inherence. Another problem: during dissolution (*pralaya*), where do universals reside? Aparārka is willing to say either that they exist without loci, or that they exist in things existing in another part of the universe (another "*Brahmāṇḍa*").

28. (E275-300) Dharmakīrti's refutations of the ways of losing an argument (*nigrahasthāna*) are answered.

CHAPTER THREE

29. (E1-7) Śrīdhara and Udayana are both cited by name and their views quoted to the effect that verbal testimony is not a distinct instrument of knowledge but is to be included under inference. Their view is refuted. Verbal testimony is required in order to explain how words indicate their meanings, since invariable concomitance is not always present.

(E7-9) Of the two kinds of verbal testimony mentioned by Bhāsarvajña the first kind, where the object is visible, is known to be valid when the effort which it produces is successful; the second kind, where the object is not visible, is validated by the trustworthiness of the person uttering it. There are two kinds of reliable persons: God and mortals.

(E9-11) Other scriptures — e.g., that of the Buddhists — are not reliable, since their acceptance is due to some external cause. The acceptance of the Vedas in all parts of Bhārata (India) is, however, not due to any visible cause and hence its validity is unquestionable. The acceptance of the Vedas as valid by cultured people at large indicates that they are the production of the Almighty.

(E15-16) The Nyāya inference for the authorship of the Vedas — "The Vedic sentences presuppose an independent writer, since they are sentences" — is criticized by Timirāri and defended by Aparārka.

42. (E96-144) In connection with Bhāsarvajña's reference to selves a lengthy review of alternative views about the nature and existence of self(ves) is provided. Aparārka says that Udayana has refuted the old arguments the Buddhists give for momentariness, but he provides defenses against new arguments. The new argument in question is : "That which has conflicting attributes must be different, like clouds" (which have the capacity to rain as well not to rain). The Nyāya answer is that these capacities can be explained by the presence or absence of accessory causal conditions, and hence momentariness is not required.

Various Jain views are rejected. Then Aparārka turns to Sāṃkhya, specifically directing arguments toward Īśvarakṛṣṇa's *Sāṃkhyakārikās*. Finally, Aparārka takes up Vedānta views, providing theistic interpretations for the great utterances (*mahāvākya*) of scripture on which Vedāntins rely. He also points to passages which contradict Advaita tenets. He provides a special section dealing with Maṇḍana Miśra's view that perception cannot cognize difference. He answers the argument by asserting that, since difference and the object perceived are identical, it is possible to perceive difference without cognizing its counter positive. Other Advaita arguments for the unreality of the empirical world are criticized.

(E144-45) Bhāsarvajña mentions three *kleśas* while Patañjali has five. Aparārka explains that the two — egotism and attachment — not listed by Bhāsarvajña can be subsumed under one or another of the other three.

(E149-54) The Vaiśeṣikas hold spatial direction (*dik*) and time (*kāla*) to be distinct types of substance. Aparārka says this is unnecessarily cumbrous. Time should not be identified as the general (*sādhāraṇa*) instrumental cause of all productions, since (big) (*mahā-*) time is unitary and cannot be responsible for different events. It will not do to say that time as limited by motion is the general cause either. The right view is that in ordinary speech when we speak of

"time" our meaning is to be explicated in terms of a property of motions called "moment" (*kṣaṇa*), i.e., a conventional measuring device. Thus, for example, we should not accept farness and nearness (in time — i.e., older and younger) as separate qualities, as we have seen, but rather construe them as being functions of greater or less numbers of moments through which the people in question have existed. Thus time is not a substance. Similar arguments apply against space's being accounted a substance. If one is worried because something is needed to create the universe at the beginning of each era, we have already admitted God for this function.

31. ŚRĪKAṆṬHA

The *Pañcaprasthānanyāyatarka* by this writer is another compendious commentary on the *Nyāyasūtras* and subcommentaries by Vātsyāyana, Uddyotakara, Vācaspati Miśra, and Udayana, in the style of Aniruddha (cf. p. 521). A manuscript of the work is available, we are told by Jetly,[1] at Jaisalmer. The comments of D. C. Bhattacharya on his date in different places are contradictory : on one occasion[2] he asserts that Śrīkaṇṭha must have lived after Abhayatilaka, the author of another work in this same style. But Jetly[3] has examined the manuscript of Abhayatilaka's work and says that Abhayatilaka remarks that he has followed Śrīkaṇṭha's work in writing his own. In another place[4] Bhattacharya argues for dating Śrīkaṇṭha in the first quarter of the 12th century, on the ground that Śrīharṣa in his *Khaṇḍanakhaṇḍakhādya* refers to a critic of *anirvacanīyatva*, and this critic is identified by Ānandapūrṇa Vidyāsāgara as none other than Śrīkaṇṭha.

32. THE VṚTTIKĀRA

Anantalal Thakur reports that in the Library of the Asiatic Society in Calcutta there is an incomplete manuscript, written in Maithili and Newari scripts, of a work commenting on Chapters 9 and 10 of the *Vaiśeṣikasūtras*, which is called in its colophons *Śrīkaṇādasūtravṛtti*.[1] The date of the author of this commentary must, on internal evidence, be located during the reign of King Vallālasena of Bengal. Thakur gives conflicting dates for this king's reign; in one place[2] he gives 1158 to 1178, but in a subsequently published article[3] he says that Vallālasena died in 1118 or 1119.

Thakur also reports[4] that the manuscript makes several references to a *Nyāyavṛtti*, written perhaps by the *guru* of our Vṛttikāra. This *guru*'s name seems to have been Śrīmān.

33. (ŚRĪ)VALLABHA (ĀCĀRYA)

Not much is known about the author of the *Nyāyalīlāvatī*. He seems to have been a native of Mithilā who knew Banaras well and perhaps studied there.[1] According to Vardhamāna Vallabha also wrote a commentary on the Fifth book of the *Nyāyasūtras*, and probably he also wrote a work entitled *Īśvarasiddhi*.[2] Bodas reports[3] that the *Nyāyalīlāvatī* is mentioned in a Kannaḍa poem which was written between 1210 and 1247,[4] and D. C. Bhattacharya says[5] that on the evidence of a later writer Vallabha is connected with the "Karṇāṭa" dynasty of Mithilā under Nānyadeva, who flourished from 1097 to 1147. On this basis we may estimate Vallabha as living during the first half of the 12th century.[6]

NYĀYALĪLĀVATĪ

Summary by Jitendranath Mohanty

The work is untranslated. "E" references are to pages in the edition of Mangesh Ramkrishna Telang, published at the Nirnayasagara Press (2d edition, 1953). (B2927).

This is an original work in the Vaiśeṣika tradition. Its standpoint is generally sober and conservative, but it is by no means a mere summary of traditional lore; Vallabha is a keen student of the literature and takes occasion to allude to contemporary issues whenever appropriate. His treatment is much influenced by Udayana, and anticipates unmistakably much Navya-nyāya terminology.[7]

1. (E1-2) Vallabha begins with the sixfold classification of categories, and considers whether the classification may not be too narrow or too wide. Are not there other categories than the well-known six? In this connection he examines successively the claims of (a) absence, (b) darkness, (c) the moment, (d) causal efficacy, (e) knownness, (f) the self-linking connector such as the relation between substratum and superstratum, (g) similarity, as being additional categories.

2. (E2,3-5) *Absence* (*abhāva*). Vallabha has two contentions. In the first place, the sixfold classification is exhaustive with regard

to positive categories. Secondly, absences are admitted as entities in the allied Nyāya school and this is not contradicted by the Vaiśeṣika; thus it is acceptable.

3. (E2) *Darkness* (*tamas*). Even if it is not the mere absence of light, it is a substance and so does not need a separate categorial classification. It is, however, actuallv nothing but the absence of light.

4. (E2) *The moment(ary existent)* (*kṣaṇika*). The supposed momentary existent cannot be apprehended by any means. This supposed moment cannot be inferred, there being no sure *hetu* for such an inference. The use of the word "moment" is due to peculiarity in our understanding of motions, and not because there is something called a moment.

5. (E2, 5-6) *Causal efficacy* (*śakti*) is not a separate category, there being no proof for its being so.

6. (E2-3, 6) *Knownness* (*jñātatā*), which is admitted by the Bhāṭṭas, is rejected on the ground that it is not necessary for knowing one's judgments, for one very well knows one's thoughts about past and future objects, as well as those about fictional things like the hare's horn, even though no *knownness* could accrue to them. The Bhāṭṭa cannot explain how the supposed *knownness* is known. A judgment is actually made known to us through a perception (*anuvyavasāya*).

7. (E3, 7) The relation of *being-qualified* (*vaiśiṣṭya*) is not a separate category. It is an epistemic property, though it is determined by the nature of reality. The relation of *being the substratum of* (*ādhāratva*) is explained either as the property of *offering obstruction to weight*, or in some cases as *being the inherence cause*, or in some other cases as the property of *being the manifesting agent*.

8. (E3, 7) Similarity (*sādṛśya*) is included by Vallabha under the category of universal (*sāmānya*), inasmuch as it resides in many things at once. There is, however, a difference: similarity has, though other universals do not have, a correlate (*pratiyogi*).

9. (E7ff.) The list also cannot be reduced. After establishing the soundness of the list, Vallabha proceeds to discuss each of the categories and its subdivisions separately.

10. (E8-10) *Earthness* (*pṛthivītva*) is established by the argument that smell must have an inherence cause, this latter being nothing other than the earth. Earthness, then, is the property which is the limitor (*avacchedaka*) of the inherence cause of smell. The quality of touch in earth is shown to be due to contact with some sort of fire (*tejas*) or other.

11. (E10-12) The whole (*avayavin*) is something produced by its parts; it is not a mere aggregate of atoms. For the atoms are not perceptible, and the object of the perceptual judgment "This is gross" can only be something other than atoms. Vallabha further argues that the unity attributed to a whole is not false but objectively valid.

12. (E12-15) *Waterness* (*jalatva*) is established by the consideration that all watery things have one common character, namely, white color that is not shining (*abhāsvara*).

13. (E15-16) *Light or fire* (*tejas*) is said to be distinguished by white color that is shining (*bhāsvara*). The redness of fire is explained as being due to other conditions. That part of gold which is the locus of fluidity is shown to be a fiery substance and not earth.

14. (E16-18) *Air* (*vāyu*) is established by an argument of the following sort. The sense of touch is not made of earth, for it is a sense organ which does not apprehend smell. For similar reasons it is not watery, fiery, etc. Hence it must be made of something other than these, namely, what is called air. The argument makes use of the rule that an outer sense organ possesses the specific quality which it is suited to apprehend.

15. (E18-21) That the external sense organs themselves are elemental (*bhūta*) is proved with the help of the argument that each external sense organ possesses the specific quality which it is suited to apprehend, and therefore comes under the appropriate class of substance (each of which is a class of elemental things). Thus the olfactory organ is earthen, the visual is fiery, etc. But in each case, the organ itself is not sensible and so is to be distinguished from other sensible elements of the appropriate class.

16. (E21-23) *The body* (*śarīra*) is not a new kind of substance, nor is bodiness a true universal.

17. (E23) *The content or object* (*of judgments*) (*viṣaya*) does not constitute an additional class of substances. All known objects come under one or another of the recognized categories.

18. (E29-30) Regarding atoms, Vallabha proves that the minimal perceptibilium (*trasareṇu or truṭi*), and its middle-sizedness (*mahattva*), are noneternal on the ground that this entity is both middle-sized and is visible, like a pot (or its size). This is said to lead by implication to the existence of atoms. The minimal perceptibilium, being noneternal, is further divisible, and the process of divisibility must come to an end. The homogeneity of the atoms with earth, ~~air~~, fire, and water is then proved by arguments of the form "atoms must possess the universals which are the limitors of the inherence causes of smell, touch, etc."

19. (E30-31) *Sound* is proved to be a quality on the ground that it possesses a universal and is yet the object of outer perception though not of visual perception. It is not a substance, for if it were it would be either partless or composite. It cannot be partless, for then it could not be an object of external perception. It cannot have parts, for what these supposed parts are cannot be ascertained. It cannot be a quality of air, for it is a specific property which though perceived is not known through the sense of touch. It cannot be the specific quality of space (*dik*), time or the internal organ, for in that case it could not be perceptible. It cannot be a quality of the self, for in that case it could not be perceived by an external senseorgan. Hence by elimination it is proved to be a quality of *ākāśa*.

20. (E31-32) *Time*. The existence of time is inferred from the fact that things are experienced as qualified by differences (in days, months, etc.) which are due to the imperceptible movements of the sun. Time is what is supposed to make this relation between things (like pots, etc.) and the movement of the sun possible. For only something which is in contact with both could serve as the connecting link. None of the other categories can perform this job.

21. (E32-35) *Space* (*dik*). The distinction between various directions cannot be accounted for by the movements of the sun, or by time, as the order of movement of the sun or of time in general is irreversible and the same for all persons whereas the order of directions in space is relative to each observer. Thus an additional substance must be recognized.

22. (E35-37) *Self.* The self is defined as that which is the inherence cause of pleasure. Neither the five specific qualities like color, smell, taste, etc., nor knowledge or consciousness can be the substratum of pleasure. In the absence of a self other than the senses, internal organ and body, memory cannot be accounted for. In this connection the Buddhist theory that the self is nothing but a series of momentary conscious states is refuted.

23. (E37-39) *Internal organ*. The existence of the internal organ is proved thus : Apprehension of pleasure is caused by a sense-organ, for it is a direct apprehension as much as perception of color is. The internal organ is that sense organ which apprehends one's own pleasures. It is different from the four material (*mūrta*) elements, for it is a sense organ which apprehends the specific quality of an all-pervading substance. The internal organ is proved to be intangible, for it is the locus of that contact which is the noninherence cause of judgments, as in the case of the self. The supposed all-pervasiveness of the internal organ is rejected on the ground that it is incompatible

with the facts of deep sleep and serial perception in the waking state. The simultaneous perception of pleasure and pain in different parts of the body is held to be illusory and due to quick succession which is mistaken for simultaneity.

24. (E39-41) Turning to the qualities, Vallabha first treats *number*. A number, say two, is not a universal, for like contact it is not apprehended in the object, say a pot, to which it would then belong whenever the senses were in contact with that object. We never say "This is two" as we say "This is a pot." The universal is contained in each one of its instances, whereas a number like two is not. Unity is not the mere identity of a thing's nature, for we are not aware of things as ones. Nor is two the mere aggregate of ones; it has its own distinctive feature. Vallabha rejects the view of the Bhūṣaṇakāra, whom he here explicitly identifies as Bhāsarvajña himself, that two, three, etc. are products of enumerative cognition (*apekṣābuddhi*), on the ground that the so called enumerative cognition itself presupposes numbers.

25. (E41-43) *Size* is the cause of our judgments of measurement. Its nature as a quality is proved by the following inference. The material cause of a minimal perceptibilium possesses a quality which belongs to a class that is pervaded by qualityness (*guṇatva*) and which is of the same class as middle-sizedness (*mahattva*); because that material cause is a substance, like a pot. Now since middle-sizedness does not belong to the *pakṣa*, i.e., the material cause, the atom and the dyad are proved to possess a quality which possesses the universal sizeness (*parimāṇatva*), this last being a property characterizing those things which are characterized by middle-sizedness or small-sizedness. The existence of middle-sizedness is proved by the following inference : Nonperception of a dyad is dependent on the lack of some specific quality, for it is a nonperception of a thing otherwise fit for visual perception and may be in contact with the appropriate senseorgan aided by light; as in the case of nonperception of air. According to Vallabha, longness (*dīrghatva*) is not a kind of size, but is analyzable as the property of extending over a large space limited by the upper and lower parts of the thing concerned.

26. (E43-44) *Separateness*. This quality is distinguished from mutual absence (*anyonyābhāva*) on the ground that the latter is negative while the former is positive. A mutual absence has the form "The pot is not a jar"; separateness has the form "The pot is different from a jar." Negation requires a counterpositive; difference needs an ablative (*avadhi*). Incidentally, Vallabha defends the admission of a special kind of separateness called separateness-of-two-things of

which an instance is "The cloth and the table are separate from the pot".

27. (E43-47) *Contact.* This quality cannot be explained as mere absence of separation. It is something positive. Contact is apprehended as a positive existent as much as inherence is. Regarding the question whether contact is a non-locus-pervading relation, Vallabha rejects the Buddhist contention that it is not, and answers their objections. That it can coexist with its own absence without contradiction is explained as being due to the peculiarity of its own nature. It is not then fair to say that because this would be impossible in the case of other positive entities the same would hold good in the case of contact as well. That would amount to denying the peculiar nature of things. There is also another sense in which contact is non-locus-pervading; a contact may obtain with regard to a whole while it is absent in some of the parts of that whole. Vallabha concedes that ultimately the issue whether contact is or is not non-locus-pervading may be one of terminology.

28. (E48) *Disjunction* is not mere destruction of contact. Like contact, it too is referred to as existent and so is something positive. Unlike destruction, it has an ablative rather than a counter-positive.

29. (E48-50) *Farness and nearness* cannot be explained either as due to more or less contacts, or as due to different numbers, or as nothing but the distinction between the earlier and the later, or as the distant and the near; for none of these characteristics is independent of the notions of farness and nearness. They are therefore distinct qualities, *pace* Bhāsarvajña.

30. (E50-51) *Judgments* (*buddhi*) manifest objects. They are of two kinds : knowledge (*vidyā*) and what is not knowledge (*avidyā*). Doubt (*saṃśaya*), a species of nonknowledge, consists neither in the affirmations of both of two alternatives, nor in two negations, nor in denial of one alternative and affirmation of the other. Rather, it has four alternatives, two affirmations and two negations (p, q, not-p and not-q). The cause of doubt is said to be perception of the common character together with nonapprehension of specific characteristics. The word "or" in "Is this p or q?" stands for the incompatibility of p and q (i.e., it is the exclusive "or"). Finally, doubt is defined as consisting in mutually contradictory predications.

31. (E51-56) *Error* (*viparyaya*) is defined as the apprehension of a thing as what it is not. The Prābhākara theory that error is due to nonapprehension of nonrelatedness is rejected on the ground that every expressed judgment (*vyavahāra*) is as a rule caused by

apprehension of the object the expressed judgment is about, so that a purposive action (*pravṛtti*) toward a shell must have the shell for its object even if its qualifier is *silverness*. What causes inference is not the nonapprehension of nonrelatedness between the *hetu* and the *pakṣa* but apprehension of the *hetu's* relatedness to the *pakṣa*. The same holds good in the case of knowledge gained from verbal testimony. Error is said to be caused by faults (*doṣa*) which not only frustrate the origination of true knowledge but may also produce error. To the Mīmāṃsā objection that if any judgment were false then there would be universal skepticism, Vallabha replies that the same consequence would follow if any expressed judgment were frustrated in a practical way. It cannot be objected that since the identity of silverness with yonder object is unreal it cannot possess the character of being the content of a judgment, for contentness (*viṣayatā*) belongs to a judgment with respect to an object insofar as that judgment causes desire and effort directed to that object, or with respect to that object which determines the judgment. It cannot be said that what is not real cannot appear, as in the case of the sky flower, because the sky flower is being spoken of and so lacks the property of being unreal. The inference that every judgment is valid because it is an apprehension is vitiated by the *upādhi not being caused by faults*. Only such judgments as are not caused by faults are valid. Vallabha rejects the view found in the *Kiraṇāvalī* that all superimposition presupposes a certain resemblance between the locus and the superimposed, and digresses in this connection to prove that darkness is not a positive substance but is mere absence of light.

32. (E57) *Indefinite knowledge* (*anadhyavasāya*), another kind of nonknowledge, is defined as the judgment which arises when a thing is apprehended in its generic character but not in its specific character, and which takes the form of an interrogative sentence containing the word "kiṃ" ("which"). This is different from doubt in the strict sense.

33. (E57-59) *Dream* is another kind of nonknowledge. The skeptic who maintains that there is nothing to distinguish dreams from waking experience is answered by pointing out that the distinction between the two, as also the fact that dreams are false while waking experience is not, is admitted by everyone, and that a denial of it would be contradicted by common experience. Even if it is not possible to find a satisfactory definition or criterion to serve as the point of distinction, yet the distinction is as corroborated by common experience as is the distinction between pleasure and pain.

34. (E59-63) In this connection, Vallabha considers the Buddhist objection that even *waking experience*, like all experience,

has no external object. The distinction, if valid, would upset the entire distinction between knowledge and nonknowledge. If judgments were no different from their objects, then knowledge-of-an-object cannot be accounted for. The Buddhist's main argument that the two, the judgment and its object, are always apprehended together and never apart and so must be identical, is rejected. Co-occurrence (*sahopalambha*) we are told, is compatible with difference. In fact, however, there is no cooccurrence, for judgments are self-manifesting and so not given along with their objects.

35. (E63-64) Turning now to *judgments*, they are found to be of two kinds, perceptual and inferential. Perception in turn is of two kinds, ordinary perception and omniscient perception.

The question "Is there an omniscient being" is made to center around the question "Is perception of atoms possible." For, were the latter possible, the existence of an omniscient being would be proved by implication. Vallabha proves the perceptibility of atoms by depending upon a rule that *being an object of knowledge* (*prameyatva*) and *perceptibility* are unconditionally found together. He naturally rejects the contention that gross extension and manifested color are jointly necessary for outer perceptibility.

36. (E65) As for ordinary *perceptual judgments*, they are either propositional or nonpropositional. Nonpropositional (*nirvikalpaka*) perception is defined as that which is free from relatedness to words, etc. The objection that there can be no nonlinguistic knowledge since a word and its object are identical is rejected on the ground that the supposed identity of word and object runs counter to experience (no one experiences that the yonder object is the word "pot"), and is also contradicted by the fact that the same object may be designated by different words just as different objects may be called by the same name.

37. (E65-66) *Propositional perceptual judgments* (*savikalpaka*) are those which apprehend relatedness. Such a judgment is perceptual, for it is apprehended as such. It is caused by the object, as the object is invariably present before it, and as the object is a necessary factor for its production. Recognition (*pratyabhijñā*) is a propositional judgment which apprehends the "that" and the "this" as related. It does not consist in two judgments, a memory and a perception, but is one perceptual judgment of their relatedness.

38. (E66-67) Vallabha turns next to *inference*. The Cārvāka objection that inference is not possible is first considered. The Cārvākas contend that the supposed universal relation between smoke and fire cannot be ascertained, for it is not possible to observe

all the instances of smoke and fire. A previously experienced fire is in fact remembered and the so-called inference is really a case of nonapprehension of nonrelatedness. Vallabha refutes this on the ground that this contention itself is established not on the basis of perception but with the aid of inference. Inference is in fact the basis of all our judgments about truth, and about the coherence of various judgments amongst themselves. Further, a judgment about relatedness must be due to an apprehension of relatedness. Moreover, pervasion is apprehended, for with the apprehension of a universal all particulars coming under it are in a way apprehended.

Unless such perception of all partieulars belonging to a class be recognized, it cannot be explained how there could be desire and action in respect of something not yet accomplished. Such desire and action, and the underlying judgment, could not have for their object an accomplished fact with regard to which there cannot arise the appropriate desire to do anything; nor can its object be the future, to-be-accomplished object, unless we admit the possibility of apprehending all the particulars of a class through the mediation of the appropriate universal.

Vallabha adds that pervasion can, under appropriate circumstances, be apprehended by the visual organ.

39. (E67-68) *Pervasion* (*vyāpti*) is said to be the accompaniment of all instances of the *hetu* by the *sādhya*. Its defining character is said to be the property of being free from all *upādhis*. An *upādhi* is then defined as that which, though always accompanying the *sādhya*, does not always accompany the *hetu*. Cases of *upādhi* are of three sorts. First, there are cases where we are certain both that a certain property always accompanies the *sādhya* and that it does not always accompany the *hetu*. Second, there are cases where we are certain of a property's always accompanying the *sādhya* but are doubtful whether it accompanies the *hetu*. Last, we may be certain that a property does not always accompany the *hetu* but have doubts whether it always accompanies the *sādhya*. Where, however, we have doubts about both there is no *upādhi* at all.

The presence of an *upādhi* may be ascertained by several methods. (i) The discovery that the nature of the *hetu* sublates (*bādha*) that of the *pakṣa*: e.g., "Fire is not hot, for it is created"; here the *upādhi* is the property of *not being fire*. (ii) Discovery that the *hetu* and *sādhya* are not concomitant (they wander (*vyabhicāra*)) except under the condition of the *upādhi*. An example: "Sound is eternal, for it is an object of knowledge"; here the *upādhi* is the property of *being created*. (iii) Where there is no *tarka* to set aside a putative con-

dition which vitiates the argument. E.g., in "He is dark-complexioned, for he is the son of Mitra" can be vitiated by adducing the *upādhi being caused by eating spinach*, which, if not set aside by *tarka*, refutes the inference. (iv) Where there is a *tarka* against the pervasion assumed. E.g., "Air is colored, for it is the locus of perceptible touch"; here it is possible to refute the supposed pervasion by noting that the concomitance only holds if the *upādhi perceptible by the visual senseorgan* is substituted for the *hetu* actually provided.

40. (E68-69) *Tarka* is the invariable consequence of one property upon the assumption of another. Its usefulness is said to consist in this : that it helps ascertainment of pervasion by putting an end to all doubts to the contrary.

In this connection Vallabha raises the following question: What is the need of repeated observations (*bhūyodarśana*) of concomitance when a single observation (*sakṛddarśana*) is enough for ascertaining pervasion and since in both cases the possibility of doubt remains ? If it were possible, refutation of propositions expressing relations contrary to the pervasion would establish it; but repetition of observation seems to have no special function of its own. In reply Vallabha points out that if pervasion were ascertained by one single observation then there could not subsequently arise any doubt about it. On the other hand, perception of the first concomitance gives rise to doubt, and hence there is no ascertainment of pervasion immediately following. After repeated observations, on the other hand, ascertainment does follow on. Any subsequent doubt concerning pervasion can arise only through doubt about the validity of the judgment involved, and such doubt can be removed by *tarka*.

41. (E69) The Mīmāṃsā contention that *subsumptive reflection* (*parāmarśa*) is not necessary for inference, memory of pervasion plus perception of the *hetu* being sufficient for the purpose, is refuted by Vallabha as follows. Just as even if in any case error ("wandering" (*vyabhicāra*)) is not apprehended there may nevertheless be doubt about the pervasion and consequently no inference, so even if the pervaded property and the property perceived in the *pakṣa* are not apprehended as different there may nevertheless be a doubt whether they are not different, and hence there may be no inference at all, for in that case the *hetu* would not be ascertained as what is pervaded. Therefore a judgment that the pervaded property is the same as the property in the *pakṣa* is necessary for inference, and this is precisely what is called "subsumptive reflection."

42. (E69-70) *Verbal testimony* is not a separate source of knowledge, for words presuppose prior knowledge of relatedness among

meanings which they make us recall. They mean what is so related. This relatedness is established by inference.

43. (E70-71) *Comparison*, also, is not an independent instrument of knowledge; its object is also known by inference. Presumption is explained as a case of only-negative (*kevalavyatireki*) inference. Concurrence (*sambhava*) is an uncontradicted judgment which arises out of innumerable cases of concomitance. For example, on seeing a cloud one says there may be rain. This is to be treated as a form of inference, for it is based on knowledge of pervasion.

44. (E72) *Tradition* (*aitihya*) is a type of judgment derived from traditions concerning reports based on doubtful sayings of yore. However, mere report is not an instrument of valid knowledge. At best it can be included under inference.

45. (E72-77) *Negation* (*abhāva*) is not an additional instrument of knowledge. Absences are apprehended, not by nonperception of the counterpositive, but by sense perception. To the Bhāṭṭa contention that if absences could be perceived by the sense organs, the absence of silverness in a shell would be perceived and there would have been no possibility of mistaking the shell for silver, Vallabha replies that the nonapprehension of the absence of silverness in a shell is due to the frustrating circumstance that even shellness is not apprehended in the shell on that occasion. Hence it is not necessary to suppose that absences are apprehended by nonperception. The senses are as much capable of apprehending absences as of apprehending positive entities.

The Prābhākara contention that the so-called absence is really of the nature of the mere locus is rejected on the ground that unless an absence is distinct from its locus the question of the relation between an absence and its locus would become pointless. Relatedness presupposes some difference between the relata. An awareness of a floor with a jar, and any other awareness of the same floor, are different, but this difference itself is an absence which must be accounted for. The judgment "There is no jar on the floor," which is different from the judgment "This is the floor," must be due to the awareness of its own object as distinct from the object of the latter judgment. It may be asked: How then is the *absence of the absence of the jar* the same as *the jar* in spite of different linguistic expressions? Vallabha replies that the jar does not have two natures, one the positive nature of the jar, the other the absence of an absence. The floor, however, as having the jar on it is different from the floor without the jar.

Vallabha asks: What is the designatum of the word "not"?

According to Vallabha, it is that which possesses neither existence (*sattā*) nor any relation to existence, that which is unrelated to any positive thing excepting through the relation of qualifierness (*viśeṣaṇatā*).

The classification of absences is as usual. Prior absence is that which has only a subsequent limit, posterior absence is that which has only an antecedent limit. Absolute absence is that which has neither antecedent limit nor subsequent limit, and whose counter-positive is a relation. One interesting difference, said to hold good between absolute absence and mutual absence, is that in the latter case the two terms that possess mutual absence may occupy the same place and time while this is not so in the case of absolute absence. Mutual absence is defined as usual as that whose counterpositive is the relation of identity.

46. (E77-82) *Liberation* is nothing but the absolute absence of pain. Vallabha considers and rejects the Advaita and Bhāṭṭa theories, as well as that of Bhāskara, and proceeds to determine the precise nature of the absence or pain. He rejects the possibility of everyone's being liberated (*sarvamukti*). Even the prior absence of pain is shown to be a possible human goal as is evinced by the act of penitence which takes the form "May I not have pain, etc."

47. (E82) *An argument* (*nyāya*) is inference for another; it is 5-membered and consists of the usual members. These 5 members are not useless, inasmuch as they are instrumental in establishing the much-sought-for *sādhya*. The *sādhya* cannot be established merely by the fourth and fifth members (*upanaya* and *nigamana*), for these may not even be employed if the *sādhya* is not sought to be established. The first member (*pratijñā*) is needed for this purpose, namely to state the purpose of the inquiry. After the *sādhya* is indicated there will be inquiry regarding the nature of the *hetu*. The fourth member is a sentence which tells us that the pervaded property characterizes the *pakṣa*, and the conclusion is meant to remove the opposite doubt and establish the *sādhya*.

48. (E82-84) There are 4 kinds of *fallacies* of the *hetu*: *asiddha*, *viruddha*, *savyabhicāra*, and *anadhyavasita*. *Bādha* and *satpratipakṣa* are not included in the list, for they, like *siddhasādhana* (proving what needs no proof) vitiate an inference only by making respectively the *pakṣa* and apprehension of pervasion impossible. They do not, therefore, directly vitiate an inference. An *upādhi* is also not a separate fallacy, inasmuch as it does not frustrate inference directly but only through undermining the presumed pervasion.

49. (E84-85) Is not *memory* a separate instrument of valid

knowledge, inasmuch as it also is an apprehension of its own object? It may even be argued that memory is not wholly dependent upon past experience, for it apprehends its object as qualified by *thatness* (*tattā*), whereas this *thatness* was not given in past experience. Nor can it be said that memory is not valid since its object need not be now as it was then; for memory apprehends its object not as being not but only as it was then and there.

To all this Vallabha replies as follows. In the first place, to claim that memory is valid knowledge is obviously all right, but to claim that it is direct knowledge would be a case of *bādha*. The question then is: Is memory a proper designatum of the term "instrument of knowledge"? This question can only be decided by consulting the usage of those who speak of instruments of knowledge. We find that philosophers like Gautama and Kaṇāda do not speak of memory as an instrument of valid knowledge. Second, memory can be excluded from the scope of the term "valid knowledge," like desire, since it as a rule has the same object as the past experience on which it depends. As regards the *thatness*, Vallabha points out that it appears only when what is recollected is the experience itself or when the object is remembered as qualified by past experience. In other cases the *thatness* need not appear. Further, according to Vallabha, the *thatness* need not be explicitly mentioned in a memory judgment.

50. (E86) *Sagely knowledge* (*ārṣavidyā*) is the supposed knowledge of sages which cannot be classified under any of the other forms. Vallabha remarks that even if it is accepted as a valid instrument, that would not contradict the twofold classification of Kaṇāda, which was made only to apply to ordinary knowledge.

After examining the instruments of valid knowledge, Vallabha turns once again to a consideration of the categories.

61. (E87-97) The list of qualities cannot be improved upon. An attempt is made to reduce an unlisted one to one or another of the listed qualities. Thus, for example, liking (*ruci*) is reduced to the judgment "I desire," laziness (*ālasya*) to absence of effort, lightness (*laghutva*) to a smaller amount of heaviness. Hardness (*kāṭhinya*) is due either to distinctive kind of contact (of parts) or to a distinctive touch. Similar reductions are offered in the case of roughness (*rauksya*), rightness (*dakṣiṇatva*), infinity, etc.

62. (E97-98) The same holds good for the fivefold classification of motions. Such motions as those of walking, entering, etc., are not separate kinds but are reducible to one or more of the listed five. Further, some of these, like entering, are shown not to be

objective generic notions; what is taken to be entering from one point of view may be coming out from another.

63. (E98-100) The Buddhist who rejects the existence of universals explains the possibility of a judgment such as "this is a cow" in one of two ways. The word "cow" either fulfils the function of excluding what is other than cow (*atadvyāvṛtti*), or it refers to a common form (*ākārasādhāraṇya*). Now, Vallabha asks: What accounts for the exclusion? The pure particular cannot do this for the pure particular is unique. It also cannot be done by a class character, for that would amount to admitting universals. Further, what could possibly be meant by the "common form"? Does it mean that all cows have a common nature (*svabhāva*)? Or, are they all related to something common? In the former case, any knowledge of a cow would be eternal; the latter alternative would amount to admitting universals.

The Buddhist further argues that what has no causal efficacy cannot be said to be real, and the so-called universals have no causal efficacy. Vallabha argues in reply that the true test of reality is not causal efficacy but being the object of a true judgment. In any case, the universals do cause something or other, for certainly they cause their own apprehension in the appropriate individuals.

Vallabha holds that according to Vaiśeṣika a universal is not omnipresent (*sarvagata*), but is present only in all its instances. However, a universal is eternal, for it continues to exist even if all its instances are destroyed.

Is existence (*sattā*) a true universal at all, not to speak of being the highest universal? Vallabha considers the objection that the usage of the word "exists" is really due to a thing's being the object of a valid judgment, and replies as follows: the objects of valid judgments are either positive or negative. This distinction can be accounted for only if we recognize something which is common only to the six positive categories, and this is precisely existence. However, existence belongs directly to only the substances, qualities, and motions; its ascription to universals, individuators, and inherence is only indirect.

64. (E100-01) *Individuators* are proved to exist by the following arguments. (1) Atoms agreeing in universals, qualities, and motions are yet related to things that serve to distinguish them from one another, for they are objects of distinct judgments, or because they possess substanceness; as in the case of cows, etc. (2) Atoms are possible objects of doubt for they possess substanceness. This doubt is terminated only by ascertainment of specific characters,

for it is a doubt, as in the case of the doubt "Is it a man or a tree ?" Atoms therefore are objects of definite knowledge, which knowledge depends upon ascertaining the individuators. (3) Existence is unrelated to some positive entity other than universals and inherence; for it is a universal, as cowness. This other positive entity is the individuator.

65. (E101-07) The existence of *inherence* is proved as follows: The judgment which apprehends that an individual is qualified by a universal must refer to a relation (*sambandha*), for it is an uncontradicted and propositional judgment whose object can only be something positive, as in the case of the judgment "The floor is with the jar." But here the relation cannot be contact, so by implication it must be inherence.

But if the relation is not perceived, how can there be a propositional judgment about it ? Vallabha says it must be due to our specific awareness of qualified and qualifier. The relation of inherence then is inferred from the fact of the propositional judgment not as that judgment's cause, nor as its object, but as its pervader. The direct object of a propositional judgment is the qualifier-qualified relation, not the inherence relation, for according to Vallabha inherence is imperceptible. Inherence only seems to be perceived because of its "nearness" to the qualifier-qualified relation.

In fact, according to Vallabha, the words "qualified" (*viśeṣya*) and "qualifier" (*viśeṣaṇa*) have no fixed meaning. Sometimes the more important term is called the qualified, the less important the qualifier. Sometimes the material cause is called the qualified, the effect the qualifier. Sometimes the manifesting medium is called the qualified, the manifested the qualifier. Sometimes the substance itself is the qualified, the quality is the qualifier. Sometimes, as in the case of "these are related by inherence," the qualifier-qualified relation is only apparent and not real.

66. (E108-111) After considering the various categories Vallabha concedes that a generic definition of *object of knowledge* (*prameya*) is inadmissible, for there being nothing that is not an object of knowledge no generic definition would serve any purpose. However, the fact that no generic definition is possible does not entail that specific definitions of the various categories are impossible.

67. (E112) *Doubt* is defined as a judgment which does not definitely ascertain the two alternatives. Vallabha rejects both the threefold and fivefold classifications of doubt; he himself accepts a twofold classification into the outer (*bāhya*) and inner (*antara*). Further, Vallabha does not take perception of common characteristics

as causes of doubt. He recognizes only judgments about the alternatives as causes of doubt: such judgments may be either gained from verbal testimony or from memory. Perception of common characteristics and the others are only contributory factors which help cause memory of the alternatives.

68. (E113) *Error* is then defined as the false judgment which occurs in the waking state (thus excluding dreams) and with only one alternative (thus excluding doubt).

Validity is not a universal residing in judgments; it is not an objective property, for then the validity of one person's judgment could be apprehended by another. It is not an *upādhi* of a judgment that is transferred to it from some other thing (in the way that knowledge, which is the property of a self, is transferred to its object as its knownness); it is not of the nature of the object. It is a property of experience (*anubhava*) and consists in experience's not manifesting its object as what it is not. Validity is not apprehended by itself (*svataḥ*), for there arises doubt whether a judgment possesses the property or not.

69. (E114) What is the *isness* (*astitva*) that is common to the six positive categories? It is not what is denoted by the verb "exists" (for we also say an absence exists); it is not that which, being positive, is denoted by "exists" (for the property of *being positive* has not been established); it is not the property of being other than an absence (for this property of being-other-than has not been shown to be a generic property, and it is not settled what constitutes negativity). *Isness* is also not *existing-in-its-own nature* (*svarūpasattva*), for this means either that being belongs to the nature of the thing or that the nature of the thing is being. If the former, universals, etc., cannot be said to be, and in the latter, even absences may be said to be. Vallabha suggests that, since an absence is never perceived as being related to existence (*sattā*), being apprehended as so related may be taken as a sure mark of *isness*. Such relatedness holds good even in the cases of universals, individuators, and inherence.

Vallabha raises the question: How is the awareness "This is existent" itself apprehended as being existent, and answers as follows: Just as the awareness of the pervasion "What is knowable is nameable" also apprehends itself—through an extraordinary perception (*sāmānyalakṣaṇa*)—as knowable and so nameable, so does the awareness of the pot as existent apprehend itself as existent.

70. (E115) What is *knowability* (*jñeyatva*) which is said to be a common characteristic of all the categories? According to Vallabha, this property owes its unity to its relation to the universal *judgmentness*

(*jñānatva*). In fact, there is a common apprehension of the form "This is known." *Judgmentness* consists in that intrinsic reference to an object which is absent in desire, etc.

71. (E128) *Knownness* (*jñātatā*), recognized by the Bhāṭṭas, is rejected on the following grounds. There is awareness of the idea of a hare's horn, but no knownness accruing to it. This awareness cannot be analyzed into awareness of a hare and awareness of horn and awareness of a relation of inherence (each with its separate knownness), for such an analysis would make it impossible to account for error. If an object cannot be known without a knownness, then a knownness cannot likewise be known without its knownness, etc.

34. VARADARĀJA (MIŚRA)

This writer probably lived in the middle of the 12th century. Though Vidyabhusana speculated that he came from Āndhra[1] and Gopinath Kaviraj claims he is from Mithilā,[2] other scholars are unanimous that he was a Kashmiri. He was the author of a commentary on Udayana's *Nyāyakusumāñjali* called *Bodhanī*, and an independent treatise, *Tārkikarakṣā*, on which he also wrote an auto-commentary, *Sārasaṃgraha*. Aufrecht mentions a commentary on Udayana's *Kiraṇāvalī*.[3] There is also a *Nyāyadīpikā* attributed to a Varadarāja, who may or may not be our author. According to Gopinath Kaviraj,[4] Varadarāja wrote his *Tārkikarakṣā* before the *Bodhanī*.[5]

TĀRKIKARAKṢĀ with SĀRASAMGRAHA

Summary by Karl H. Potter

"E" references are to the edition by V. P. Dvivedin, (=B2986) reprinted from The Pandit in 1903. The work is untranslated.

BOOK ONE

1. (E3-5, including *kārikā* 1) The categories, instruments of knowledge and the rest, are to be defined in brief compass, for the understanding of reality leads to liberation. The work is intended for beginners.

2. (E6-11, including *kārikā* 2) An instrument of valid knowledge is the means (*sādhanā*) to valid judgment (*pramiti*) when the means is pervaded by valid knowledge (*pramā*). Or, it is that which

is the locus of valid knowledge and is pervaded by it. Valid knowledge (*pramā*) is experience (*anubhava*) of things as they are (*yathārtha*).

The commentary explains that even when the instrument and the locus of valid knowledge are different from each other, the instrument of valid knowledge is still pervaded by it. The point is that there is no failure of the definition to apply to God, since He is a locus of valid knowledge. Nor is there overextension so that "valid knowledge" would be applicable to erroneous *hetus* proffered by selves other than God, for there is no regular relation between them and valid knowledge.

Objection : Your definition underextends, since it fails to apply to sense organs, *hetus*, and words, for there is no regular relation between them and valid knowledge either. *Answer* : Of course. They are not valid as such. We only accept judgments as valid when there are appropriate sense object contacts, or when there is subsumptive reflection (*liṅgaparāmarśa*), etc.

3. (E11-12, including *kārikā* 3) Valid knowledge is of two kinds: eternal and noneternal. The locus of eternal knowledge (viz., God) is one instrument; the other kind is the instrumental cause of valid knowledge.

The commentary adds that according to Nyāya the knower (*pramātṛ*) experiences validity through its invariable concomitance with God's knowledge.

4. (E13-17, including *kārikās* 4-5) The Buddhists say that validity consists in nondeviant (*avisaṃvādi*) judgment. Some say that experience other than memory is the instrument of valid knowledge. Others say it is ascertainment concerning the nature of a thing when that nature was previously unknown. Still others define it as the operation (*vyāpāra*) involved in gaining the object (*prameya*). Yet others say it is the aggregate of causal factors (*sāmagrī*) regularly connected to valid knowledge.

Commentary : The Buddhists identify nondeviant with efficient (*arthakriyā*) judgments, but they are wrong, since the definition fails to cover inferences about past and future things. No efficiency can properly be said to belong to objects past and future, since they do not exist. Furthermore, the definition overextends to include both memory and propositional judgments, neither of which are credited by the Buddhists as sources of valid knowledge. Now suppose the Buddhists decide to admit propositional judgments as valid; then nonpropositional ones will become invalid, since they deviate from propositional ones.

On the other hand, if the Buddhist insists that propositional

judgments are always invalid, then it will follow that inference is always invalid, since it necessarily involves propositions (*vikalpa*). But this is a stultifying position to take if one proposes to argue!

5. (E19-30) The Prābhākaras are identified as the ones who define validity as experience other than memory. Varadarāja addresses himself to a Mīmāṃsaka (whom the commentators identify as Śālikanātha Miśra), and argues that in the first chapter of this work, when he is defending the validity of Vedic utterances against the Buddhists, this definition of validity is violated, since knowledge gained from such utterances involves memory. The Prābhākaras try to save their case by holding that memory judgments in themselves are valid, since they are self-illuminating; but this is rejected as contradicting their own view.

Likewise, the definition of validity as belonging to any awareness which is self-originating (which is an alternative way of expressing the Prābhākara view) should be abandoned, for it has the above defects. In addition, propositional judgments and inference would be invalid, since they depend on other judgments for their origination. If it is said: "The idea we have in mind is that a valid judgment must not depend on any other judgment with the same content (though it may depend on other judgments with different contents)," then the answer is no, since this will still exclude inference, which depends on grasping pervasion with regard to the content of the judgment inferred, as well as excluding the validity of judgments gained from verbal authority. Or if it is said: "Very well, we will allow that a valid judgment may depend on another with the same content, but only when the definite discrimination of the object is the effect of that other judgment," again the answer is no, since such discrimination occurs with respect to contents which are invalid. Also, this would allow memory as valid.

6. (E30-39) For the same reasons, it follows that the definition of perception as direct (*sākṣāt*) experience (*pratīti*) is incorrect. There is no specific universal (*avāntarajāti*) called "directness" (*sākṣāttva*) residing in judgments, since judgment is a quality (of the self) and there is no reason to postulate a specific universal belonging to a quality. The opponent tries, nevertheless, to explicate this notion of "directness." Eight possible definitions are offered, and each refuted. (1) Being produced from one sense-judgment separate from any other judgment; (2) or separately from any other judgment which has the same content; (3) the manifestation of a thing (*vastu*) observed at that same time; (4) having a content whose nature (*svarūpa*) is one of the things belonging to a category; (5) having a content

which is a real thing (i.e., belonging to a category) distinguished from other real things by sharing some universals and differing with respect to others; (6) having the power to produce linguistic usage about a real thing distinguished from other real things which have been seen, where the difference in what has been grasped does not depend on another judgment about a real thing; (7) being congenital to the triadically analyzed judgment "I know this"; (8) any other property. The refutations of each of these are rather schematic and turn mainly on the claim that they either overextend to include memory or underextend to exclude certain kinds of perception, etc.

7. (E39-50) The (Bhāṭṭa) Mīmāṃsā teachers say that valid judgments involve the ascertainment of the nature of things when that nature is previously unknown. But this will include certain types of error, and it will exclude knowledge derived from the Vedas.

Perhaps, then, it will be proposed that the valid instrument be identified merely as as-the-object-is-ness (*yāthārthya*). *Answer* : No, for this would extend to include, e.g., the trace which produces memory, and that trace is not counted as a valid instrument by the great sages (who wrote the *sūtras*). Nor should it be so counted, as it is not a case of perception insofar as its result is not direct, and it is not itself a case of inference.

Here is another definition of valid instrument of knowledge : Validity is a judgment's having as its content an appearance, not previously cognized, of a real thing, in which is observed a small part of the time occupied by that thing (i.e., the temporal span of the object and its perception must overlap, in order to exclude memory). This is refuted. Space and time do not in themselves have specific qualities to differentiate things thus. If one bases the discrimination (of the time) on an apperception (*anuvyavasāya*) of the form "I experienced the pot at a certain time," one would again be granting validity to memory. If one then says that if time is imperceptible it cannot be proved to exist at all, the answer is that it is inferred. Nor is the temporal determination to be credited to movements of the sun, for time and space are all-pervading (*vibhu*) and there is no relation of the sun's motion to them.

8. (E50-53) These considerations also defeat the theory that the *upādhi* which differentiates a valid appearance from invalid ones is the knownness of the object which appears. For we find no validity in such cases. Knownness is a property of judgments, not of their contents.

Objection : Knownness can be proved by the following inference : "One produces a judgment by one's own activity, since it is an action,

like going (*gamana*)." *Answer*: No, since judgment's being an action is unproved. Judgments reside in all-pervading substances as well as limited ones.

9. (E55-56, including *kārikās* 6-9) Perception and inference are valid instruments. Akṣapāda defines comparison and verbal testimony as valid also. The Cārvākas believe in only one instrument, perception. Kaṇāda and the Buddhists add inference to that. The Sāṃkhyas also include verbal authority. Some Naiyāyikas also believe in those three; other Naiyāyikas add comparison. Prabhākara accepts these along with presumption. The Bhāṭṭas and Vedāntins believe in six : these along with negation (*abhāva*). The Paurāṇikas hold to these six plus concurrence (*sambhava*) and tradition (*aitihya*).

10. (E57-60, including *kārikās* 10-11) Perception is pervaded by immediate (*aparokṣa*) validity. It is of two kinds : propositional and nonpropositional. Propositional perception has as content as object qualified by names, etc.

Immediacy, says the commentary, is the same as directness (*sākṣāttva*, see above). This definition makes perception also an attribute of God's, so that the remark "Śiva is my valid instrument of knowledge" makes sense.

11. (E60-64, including the first half of *kārikā* 12). Nonpropositional perception has as its content the mere pure particular, free from qualifications such as names, etc.

The Buddhists think that *only* nonpropositional judgments can be perceptual. Thus they (viz., Dharmakīrti) define perception as "(a judgment) free from names, etc. and without error" (*kalpanāpoḍhamabhrāntam*). But this is wrong. The phrase is useless, for the word "without error" is sufficient by itself to exclude all sources of error including names, etc.

The Word-ists (*śābdikas*) say that *all* perception is propositional, but that is not the case either. For judgments do arise without being shaped in words, when the relations among their constituents are as yet ungrasped.

According to Nyāya there is no other cause for seeing a ball of stuff (*piṇḍa*) than sense-object-contact; thus both propositional and nonpropositional judgments can be perceptual. Varadarāja traces authority for this to Gautama's definition of perception as "*avyapadeśya, avyabhicāri, vyavasāyātmaka.*" The first and the last of these terms designated nonpropositional and propositional judgments respectively.

12. (E64-65, including the second half of *kārikā* 12) Inference is the instrument of valid knowledge which depends on the grasping of pervasion.

The *ācāryas* say that inference is subsumptive reflection (*liṅga-parāmarśa*), but what they are defining is actually the *hetu*, which Varadarāja will deal with below.

13. (E65-69, including *kārikā* 13) Pervasion is a relation free from *upādhis*. The commentary explains that this definition distinguishes pervasion from *sopādhika* (with-*upādhi*) relations like friendship and family relationships. I.e., pervasion is a natural (*svābhāvika*) relation (*sambandha*).

An *upādhi* is something which does not occur in all the places where the *hetu* occurs, but does occur in all the places where the *sādhya* occurs. E.g., since there is violence (*hiṃsātva*) in prescribed killing (for sacrifical purposes, say), prohibitedness is an *upādhi* with respect to the *sādhya* unmeritoriousness (*adharmatva*) and the *hetu* violence, for prohibitedness occurs wherever unmeritoriousness does but it also occurs at places where violence does not. Thus there is no pervasion between violence and unmeritoriousness.

14. (E69, including the first half of *kārikā* 14) *Upādhis* are of two kinds : certain (*niścita*) and doubtful (*śaṅkita*). Prohibitedness in the above example is an instance of the first kind. But when there is doubt as to whether a qualifier which has been spoken of exists or does not exist, then the *upādhi* is of the doubtful variety.

15. (E70-78, including the second half of *kārikā* 14 and *kārikās* 15 through the first half of 19) Inference is divided into the usual three kinds — only positive, only negative, and positive negative — and they are explained. Definitions are merely only-negative inferences, since they always involve specification of a property unique to the thing being defined, e.g., *dewlappedness* for defining "cow." If there are other things which share the property the definition fails, and the inference is vitiated by the *anaikāntika* fallacy.

16. (E79-84, including the second half of *kārikā* 19 through the first half of *kārikā* 21) The commentary controverts the Buddhists' division of inference into those involving either identity or causality. This is not correct, for there are lots of inferences that occur in the world which do not fall into either of these two classes. Furthermore, since in the Buddhist view the *hetu*-possessor is identical with the *hetu*-property, there is nothing left over to infer from knowledge of the *hetu*, and likewise one cannot infer universals from particulars or vice versa, since in the Buddhist view there is no difference.

17. (E85-89, including the last half of *kārikā* 21 through the first half of *kārikā* 23) Comparison is recollection of perception on the part of someone who gains understanding of an object from hearing a sentence which includes a word he does not as yet know the denota-

tion of. It has three kinds, as the object referred to by the sentence in question may be of three kinds, viz. through similarity, through dissimilarity, through the mere property itself.

The commentary gives examples of the three kinds. (1) Comparison through similarity: having seen a cow, recognizing a *gavaya*. (2) Comparison through dissimilarity: having seen a cow, finding an animal which is not cloven-hoofed and recognizing that it is a horse. (3) Comparison through the mere property itself: having seen a camel in the north with its long neck and pendulous lip, etc., recognizing another one in the south by the same properties.

18. (89-94, including the last half of *kārikā* 23 and the first half of *kārikā* 24) The object grasped by comparison is just the relation between the understanding of the object and the one who understands. There is no other instrument qualified to grasp this relation.

The relation in question is not understood directly from the sentence heard (e.g., "a cow is like a *gavaya*"), since the cognizer does not yet understand the meaning of the word "*gavaya*," nor is it possible that it is brought about by the similarity of the *gavaya* to the cow, because one cannot see a relation between relata one of which he is not acquainted with. If one says "Let the judgment which grasps similarity with cow be just that judgment which is the result of comparison; it is the occasion for the uttering of the word *gavaya*," the answer is no, because of overcomplexity, since the word "cow" ought to denote a cow, in which case we should not recognize the animal presented as a *gavaya* but as another cow.

The Mīmāṃsakas explain comparison as a kind of inference, specifically, an inference from the judgment concerning the similarity to a certain kind of object on the part of an object which was earlier grasped to a judgment concerning the similarity of that kind of object to something remembered to be the referent of the word. E.g., someone who once saw a cow in the forest, because he grasped the similarity of cow to *gavaya*, when in the city he remembers this similarity, comes to know the similarity of the referent of the word *gavaya* to cows. This can be phrased as an inference thus : Cows are similar to *gavayas*, because they are similar to the referents of the word *gavaya*. But this will not do, since ordinary people do not make such inferences even though they grasp the pervasion mentioned, since they can experience the judgment as directly as they can see the palms of their hands.

19. (E94-118, including the last half of *kārikā* 24 and the first half of *kārikā* 25) Verbal authority (*āgama*) is that teaching (*upadeśa*) which has an object which is far away (*para*), is spoken by a man who

sees things as they are, and which speaks of the unseen as it actually is.

All these qualifiers are necessary, Varadarāja avers, since the man who sees things as they really are may not speak correctly, and one who is in error may say the right thing by accident.

Now these four instruments of knowledge include all other possible candidates. Presumption and occurrence are included in inference; tradition is included in verbal authority; negation (as an instrument) is included in perception, although absences are not always known through perception; sometimes they are inferred.

The Prābhākaras, denying that absences are objects, do not even allow negation to be an instrument. According to them the judgment "there is no pot on the ground here" has no content (*nirviṣaya*). In fact, they say, there is no such judgment of the form "there is no. . . ." But in denying such judgments they commit the fault of denying the direct testimony of experience, and of failing to explain the cause of our ordinary experience. Furthermore, if there are no such judgments of the form "there are no...," then their own claim is undermined. If they try to identify the locus — the ground — as the content, or as the cause of the experience, Varadarāja produces reasons for rejecting these claims.

The Jains hold that there are two kinds of instruments — distinct (*spaṣṭa*) and indistinct. These answer to the distinction made in Nyāya between mediate (*parokṣa*) and immediate.

This ends the section on the valid instruments. We turn now to the objects of valid judgments.

20. (E118, including the last half of *kārikā* 25 and all of *kārikā* 26). An object of valid judgment is what needs to be understood for the purpose of gaining liberation. There are twelve kinds of objects, viz., those listed in the *sūtrās*.

21. (E119-22, including *kārikā* 27) A self is a conscious (*cetana*) thing and possesses the marks of pleasure and pain, etc. A body is that final whole (*antyāvayavin*) which is the abode of motions, enjoyment, and sense organs.

The inclusion of consciousness as an attribute of the self, says the commentary, is in order to preclude the definition's failing to include the state of deep sleep.

22. (E123; including *kārikā* 28) The sense organs produce correct direct knowledge when they are united with a body. They differentiate the property of *directness* (see above, section 6).

In subsequent sections the other objects are reviewed, followed by a review of the Vaiśeṣika categories which contains no notable departures from the standard account.

23. (E163-65, including *kārikā* 54) After having summarized the Vaiśeṣika ontology, Varadarāja remarks that the followers of Kumārila do not allow individuators and inherence as objects. The followers of Prabhākara, on the other hand, admit all the positive categories of Vaiśeṣika excepting individuators, but add three more categories, namely: causal efficacy (*śakti*), number, and similarity. Varadarāja comments that it is wrong to make causal efficacy a separate category, since then it would be separate from the cause's nature and the accessories. Number is included among the list of qualities, and similarity is included under the category of universals.

24. (E185-86, including *kārikā* 70) Varadarāja's account of *tarka* is unusually extensive. *Tarka* is an undesirable outcome. There are two varieties: the abandonment of validity of one position, and the ascertainment of the validity of a position contrary to that one. E.g., as example of the first type: "if water could not quench thirst thirsty people would not drink it": this forces the abandonment of the position that water cannot quench thirst. As example of the second , then, "if water when drunk burned inside then it would burn me too," which shows that water does not burn. Udayana's *Pariśuddhi* is cited approvingly.

25. (E186-88, including *kārikā* 72) *Tarka* has 5 varieties, and is also 5 membered.

The 5 varieties are: (1) self-residence (*ātmāśraya*), (2) reciprocal dependence (*itaretarāśraya*), (3) circularity (*cakraka*), (4) infinite regress (*anavasthā*), and (5) undesired outcome (*aniṣṭaprasaṅga*).

The 5 members are: (1) pervasion, (2) not being struck down by a *tarka*, (3) coming to a halt in an erroneous position, (4) undesirability, and (5) nonconformity. These are explained. Because of the undesirable outcome's having a mark which produces that outcome, there is pervasion. This pervasion's not being opposed by any *tarka* constitutes the second member. As a result, a conclusion is drawn which constitutes the erroneous outcome. This outcome is then said to be undesirable, since it is not the case (two varieties are distinguished). Finally, the nonconformity is the failure of the opponent's argument to prove his position, since it involves the fallacy of contradictoriness (*viruddha*).

26. (E190, including the second half of *kārikā* 73 and the first half of *kārikā* 74) The content (*viṣaya*) of *tarka* is an object which is not yet known, but is real and doubtful. The cause of *tarka* is a *hetu* upon which something is superimposed. Its result is ascertainment of the nature of the object.

27. (E193-204, including the second half of *kārikā* 74 and the first half of *kārikā* 75) *Tarka* assists instruments such as perception in producing ascertainment. Varadarāja refers the reader to Udayana's *Ātmatattvaviveka* for arguments showing the ability of instruments to assist each other. Mīmāṃsā teachers speak of the way in which verbal testimony supports *tarka*, and Manu is quoted.

The specific assistance which *tarka* provides to the valid instruments consists in cutting off the desire to know the *vipakṣa* in the *pakṣa*. When someone suspects that there is an *upādhi* vitiating (say) an inference, he may ask himself "Even though there's smoke on the hill, may there yet be no fire there?" This is where *tarka* can help, by precluding this question through reminding us of pervasion through the reasoning "if something is without fire it must be without smoke."

Objection: This yields an infinite regress, since to know the *tarka* is correct one must know the pervasion it is helping to prove. *Answer*: No, the *tarka* supports the inference by appealing to the undesirability of the notion that smoke could arise on the hill without an appropriate cause, namely fire (rather than, say, a demon). Udayana is quoted as favoring this answer.

Tarka operates in this fashion with respect to a variety of *upādhis*. A series of doubts may arise, each stemming from the previous one, and it is illustrated how these are to be resolved each in turn by *tarka*. *Objection*: How can *tarka* assist the instruments of knowledge, since it is produced by an erroneous *hetu*? *Answer*: It is common experience that undesirable means can regularly produce desired outcomes. E.g., when there is a desire for food that is poisonous, if someone says "if you eat that you'll die" the result is the cutting off of the desire to eat that food, but the means (i.e., what is referred to by the "if" clause, namely the eating of poisonous food) is undesirable.

28. (E206-08, including *kārikā* 76). *Controversy* (*kathā*) is a long sentence (or argument) whose content is a subject for examination by many speakers. It has six limbs (*aṅga*)—some say four. They are : (1) rules for demonstration (*nirūpya*) and for the demonstrator (*nirūpaka*); (2) rules of procedure, concerning who speaks in what order; (3) the administration of these rules, (4) coming together, (5) determination of the ways of losing the argument (*nigrahasthāna*), and (6) agreement as to when the debate shall end. Those who say there are only four limbs include (3) and (4) under (2). Some say a scribe should be chosen. A council of 3, 5 or 7 members is recommended.

29. (E210-12, including *kārikās* 77 through the first half of

kārikās 79) Controversy is of three kinds: discussion (*vāda*), sophistry (*jalpa*), and cavil (*vitaṇḍā*). Discussion is controversy which is free from passion, devoted to proof on the basis of valid instruments, and results in ascertainment. Sophistry is controversy which involves quibble (*chala*), etc., and the aim of which is victory. Cavil is like sophistry but is carried on without even the intent of victory.

30. (E216-20, including the second half of *kārikā* 79 through *kārikā* 82) Now fallacies of the *hetu* are taken up, following Gautama's classification and the subdivisions introduced by the classical commentators on the *sūtras*

31. (E220-23, including the first half of *kārikā* 83) There is an extended discussion of the fallacy called *prakaraṇasama*. Varadarāja says that commission of this fallacy prevents (*pratiruddha*) both discussants' conclusions because of the equal force of the *hetus* they respectively adopt.

An objector argues that such a case should be brought under *kālātīta* instead. For, he says, it is hard to see how something can prove both a thesis and its opposite; yet this must be the correct analysis of the case, since it is unfitting to suppose that there is a contradictor of a *hetu* whose force has already been destroyed by sublation, and because it is actually impossible for two distinct aspects of one thing to have the same value. *Answer*: That is all right, but in this case the actual nature of things is not correctly grasped and so people have the opinion that there is contradiction. Furthermore, it is not only in inference that we have prevention (*pratirodha*), for we also find it in perception. E.g., "this shell is white because it is a shell, like other shells" is vitiated because we perceive some shells to be yellow, not white.

Varadarāja mentions still other views on the *prakaraṇasama* fallacy. Some say that it is "nonwandering from contradiction" (*viruddhāvyabhicāra*), e.g., where the imperceptibility of air is proved through its lack of color and its perceptibility is proved through its touch, this is nonwandering from contradiction. Again, some *ekadeśins* (presumably Bhāsarvajña's wing) define and explain *prakaraṇasama* as a *hetu* which, though it possesses the threefold mark (*trairūpya*) proves both opposing views. E.g., "sound is noneternal, because it is other than the *pakṣa* and the *sapakṣa*, like *sapakṣa*." But, says Varadarāja, this definition is impossible. It is not possible for one *hetu* to prove both of two opposing views and yet have the threefold mark. Either the sky (say) is the *sapakṣa* or it is the *vipakṣa*, but not both. So the *hetu* given in the example, "because it is other than the *pakṣa*

and *sapakṣa*," is an improper one. However, other *hetus* of this form are not improper, e.g., "because (the *p*) is other than sound or *ākāśa*" is acceptable.

32. (E223-28, including from the second half of *kārikā* 83 through the first half of *kārikā* 86) The *asiddha* fallacy is defined and subdivided in familiar fashion.

33. (E228-31, including the second half of *kārikā* 86) The *kālātīta* fallacy involves being sublated by a more powerful instrument. Examples of four varieties are offered : (1) perceptual: "Fire is not hot, because it is a substance"; (2) inferential: "atoms have parts because they are elements; (3) scriptural: "sacrifice, etc., does not lead to heaven because it is an activity"; (4) from comparison: "similarity to cow is not a property of that which is spoken of by the word '*gavaya*', because it is a real thing."

BOOKS TWO AND THREE

These books deal respectively with the futile rejoinders and the ways of losing an argument.

BODHANĪ on Udayana's NYĀYAKUSUMĀÑJALI

Summarized by Gopikamohan Bhattacharya, Kurukshetra University

This is an extensive commentary on the first three books of the *Nyāyakusumāñjali*. It was written after the *Tārkikarakṣā*, for reference to that work occurs in the *Bodhanī*.

The work has been edited twice. In the present summary "E" citations refer to the Kashi Sanskrit Series 30 edition (B2701).

1. (E41) Causality is established by perception. That every event has a cause is known by perception. Varadarāja sets forth an inference also. Entities about which there is doubt as to whether they are caused or not are determined by some cause, because of the fact of dependence (*sāpekṣa*). This fact of dependence in its turn is determined by occasionalness (*kādācitkatva*). Eternal entities, such as the sky (*ākāśa*), etc., may be cited as negative examples.

2. (E54) Occasionalness means the relation of an object, which was non-existent before, to a subsequent point of time.

3. (E92-93) Differences among effects are produced by differences in their causes, E.g., a pot and a cloth have different causes. Or, different effects may have the same cause if and only if there is a sequence in time; the same cause assisted by different accessories at different times may produce different effects, e.g., milk and yoghurt. The opponent (one who holds Brahman to be the

solitary cause of the universe) cannot admit the first alternative, since he postulates one single cause. Nor can he turn to the second alternative, since he rejects the idea of any accessory conditions.

Simultaneity is the belonging of many things to one particular time. One unitary cause cannot produce different effects simultaneously. If one unchanging cause were capable of producing different effects it would produce those effects at one and the same time, and not in a sequence. This has a solution in the Buddhist theory of momentariness, because in that theory we have a totally different cause, having practical efficiency, from the one which lacks that efficiency. But if the theory of momentariness is not accepted, the other alternative is to admit the theory of accessory conditions.

4. (E211) Validity is a common attribute. It is never produced since it is eternal. The validity of a judgment is extrinsic, i.e. it is due to some extrinsic causes other than the causes of judgments in general. Varadarāja argues: (a) Whatever is a specific type of effect is due to some extrinsic cause other than the cause of the common effect of that type, as, for example, barley sprout. Barley sprout is a specific type of effect and is produced from barley seed and not from any type of seed. Likewise validity is a specific type of effect and hence must be due to some specific cause. (b) Whichever is a judgment of a specific sort is due to some extrinsic cause to that which produces knowledge in general, as, for example, a false judgment.

Judgment has been defined as a particular entity (*vyakti*) which instantiates the universal *judgmentness* (*jñānatvābhivyañjaka*) and intends its content (*viṣayapravaṇa*). Perception, etc., are its varieties. God's judgment is eternal, hence is not due to any cause.

5. (E345-348) Doubt is removed by *tarka*. Opponent: *Tarka* is based on invariable concomitance which will require another *tarka* and there will be an infinite regress. Answer: Who doubts in such a manner? Is he a practical man, or is he a clever one who wants to do away with the cause-effect relation altogether? To the former, our reply is that one can doubt so long as he does not come in conflict with practical behavior. Contradiction is the limit of doubt. The latter, on the other hand, if he goes on doubting, cannot possibly establish his own viewpoint.

6. (E348) Universal concomitance is not determined simply by repeated observation. It is also not a fact that doubt about the existence of an *upādhi* or vitiating condition arises everywhere.

But doubt sometimes arises as to whether the co-existence is due to an invariable relation or due to some other reason. And here

the services of *tarka* are required to remove this doubt. Although we see smoke on the mountain, we may doubt if the mountain has fire or not. The possibility of such a doubt will be eliminated by the application of *tarka*: had the mountain no fire even though it has smoke, the latter would not have been produced at all, because it is the fire which produces smoke and as such fire would not have been a regular concomitant of smoke.

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35. ŚIVĀDITYA

This author is well known to Nyāya-Vaiśeṣika scholars for his useful handbook, the *Saptapadārthī*. A surprising amount of misinformation and misapprehension has been disseminated about him in the literature, however. A number of scholars[1] were for a long while under the impression that Śivāditya was identical with Vyomaśiva, and estimated his date around 950 accordingly. The identification does not seem reasonable. For one thing, Śivāditya's work on the seven categories follows the strict Vaiśeṣika scheme of two instruments of knowledge, for example, while Vyomaśiva admits verbal authority as a separate instrument. But this is not the most impressive reason against the identification and dating mentioned. More important, Śivāditya was evidently a great exponent of what was called the "*mahāvidyā* syllogism," a technique we shall discuss below. This seems to have been a phenomenon which arose after Udayana's and Vyomaśiva's time, for it brought together the efforts of Naiyāyikas and Advaitins. One tends to associate it with the time of Śrīharṣa, and indeed Śrīharṣa, who flourished in the 12th century, makes reference to Śivāditya, according to one scholar.[2] We conclude, therefore, that Śivāditya lived during the first part of the 12th century.

He may have written as many as six works. The *Saptapadārthī* has been edited many times and translated more than once. A short work on the *mahāvidyā* syllogism, entitled *Nyāyamālā*, has been eidted. However, our author's *magnum opus*, according to D. C. Bhattacharya,[3] was probably a work entitled *Lakṣaṇamālā*, which was also apparently based on the *mahāvidyā* arguments. No manuscript of this work is known. It is not the work summarized above and now attributed to Udayana.[4] In addition, Śivāditya wrote a work called *Hetukhaṇḍana*, of which a "poorly copied, unintelligible"[5] manuscript exists. He also mentions, as his own creations, an *Upādhivārttika* and an *Arthāpattivārttika*.[6] Whether these are two more works, or chapters of one of the above, is impossible to say.[7]

SAPTAPADĀRTHĪ

Summary by Karl H. Potter

As its title implies, this work reviews the seven categories of Vaiśeṣika. Noteworthy is the fact that they are enumerated as seven, with absence included as the seventh category. Although in effect this had been recognized as Vaiśeṣika theory by previous writers for a couple of centuries, Śivāditya is perhaps the first to make it official.

In the main, the work merely summarizes Vaiśeṣika theory and does not add much to its defense. The summary below, then, picks out only a few of the more interesting items for review. References are to pages of the combined edition and translation by D. Gurumurti (Theosophical Publishing House, Adyar, Madras, 1932) (B2980).

1. (pp. 1-3) The work begins with an invocation to Śambhu (= Śiva), and seven categories are listed, the seventh being absence (*abhāva*).

2. (pp. 7-8) Universals (*sāmānya*) are of three kinds: highest (*para*), lowest (*apara*), and intermediate (*parāpara*).

3. (p. 18) There are three kinds of time: origination (*utpatti*), maintenance (*sthiti*), and destruction (*vināśa*).

4. (p. 18) Eleven directions are mentioned as divisions of space (*dik*): east, southeast, south, southwest, west, northwest, north, northeast, lower, upper, and middle.

5. (p. 42) Motions are divided into prescribed, prohibited, and indifferent.

6. (p. 42) Universals (*sāmānya*) are either *jātis* or *upādhis*.

Existence, substanceness, qualityness are offered as examples of *jātis*. Cookingness is an *upādhi*.

7. (pp. 46-47) Similarity (*sādṛśya*) is a universal of the *upādhi* type.

8. (pp. 50-51) Knowledge of the reality of the categories is the cause of liberation. Reality has the form of not being superimposed upon (*anāropita*). Knowledge of reality is direct experience (*anubhava*) and has four kinds of mark: hearing, thinking, meditating, and immediate awareness. Liberation is the absence of pain together with the posterior absence of false judgments which are the cause of pain, this absence produced by right knowledge.

9. (pp. 52-54) Right knowledge depends on definitions. A definition differentiates its object from everything else by specifying a mark which has only-negative concomitance.

10. (pp. 56-62) Definitions of a soholastic sort are offered for each category. E.g., substance can be defined (1) as that which is characterized by substanceness, (2) as that which has qualities; (3) as that which can be an inherence cause.

11. (pp. 65-67) Time is the abode of the noninherence cause of priority and posteriority produced by the movements of the sun and which is not an abode of the priority and posteriority themselves. Space is similarly defined, except that in its case the priority and posteriority are not produced by the sun's movements.

12. (p. 76) Judgment is the light (*prakāśa*) residing in the self.

13. (pp. 80-81) Dispositional tendency (*saṃskāra*) is that which produces in its locus the condition in which it was at its production.

14. (p. 95) A moment (*kṣaṇa*) is a time limited (*avacchinna*) by a motion related to a prior absence of a disjunction which is not producing another disjunction.

15. (p. 96) Maintenance (*sthiti*) is the occurrence of a thing. It is the possession of a nature free from the absence of its own prior absence. Or, it may be said to be that which is related to the prior absence of its own effect.

16. (p. 106) Valid perception has seven varieties: God's perception and perceptions derived from each of the six organs.

17. (pp. 106-07) Valid inference consists in knowledge of the *hetu* as qualified by pervasion and *pakṣadharmatā*.

18. (pp. 107-08) Pervasion is the relation between the pervader and locus of the pervaded qualified by absence of any *upādhi*.

19. (pp. 119-22) The six kinds of fallacies are explained following Praśastapāda.

20. (p. 124) *Tarka* is the reduction (*prasañjana*) of an undesired pervader. This reduction consists in the assertion of the negation of the opponent's position through showing other negations by parity of reasoning.

21. (p. 125) Sleep occurs when the internal organ, not having merit born of yoga, resides in a place without a sense organ.

22. (p. 128) Ordinary pleasures of life are dependent on effort. Heavenly pleasure, however, does not depend only on effort.

23. (p. 136) Being material (*mūrtatva*) is having dimensions limited by this-much-ness (*iyattā*).

24. (p. 143) Individuators inhere in eternal substances.

25. (p. 151) Being a locus (*adhikaraṇatva*) is having a universal resident.

26. (p. 151) All-pervadingness (*vibhutva*) is being in contact with all material substances.

27. (p. 152) Separable connection (*yutasiddha*) is the relation between things which are found to be two (*vidyamānayoḥ*). Inseparable connection is the relation of locus and located (*ādhārādheya*) between things which are not found to be two.

28. (p. 152) A *śāstra* is that which teaches the means to the better (*śreyas*).

NYĀYAMĀLĀ

Summary by S. Subrahmanya Sastri

The work is edited by Pandit Subrahmanya Sastri in AOR 8, 1950-51, pp. 1-10. (B2975).

This work aims at pointing out counterinferences against inferences adopted by disputants in establishing their views. Where counterinferences are already in vogue, the author supports both of them by removing fallacies that may be pointed out in them. (P. 1) Thus in the Naiyāyikas' inference: "the earth, sprout, etc., must have a creator, because these things have an origin," Śivāditya removes the *upādhi being created by the body* by a new method called "*mahāvidyā*." Likewise, in the counterinference: "the earth, sprout, etc., have no creator, because they are not created by a body," he removes the *upādhi nonoriginatedness* through the same *mahāvidyā*.

(Pp. 2-10) The author then gives counterinferences relating to the Nyāya inferences establishing God in other ways. E.g., in answering the question "if this sort of inference be valid then a pot can be inferred as nondifferent from a cloth," the author says "not

so, since the inference establishing such nondifference is sublated by perception."

Answering another question: "by another *mahāvidyā* the self can be established as nondifferent from the universe," the author says that this can be accepted as there is no contradiction with perception on the part of such an inference. (Pandit Subrahmanya Sastri has also commented on the *mahāvidyā* argument in the introduction to B2975: I reproduce his remarks here).

The *Nyāyamālā* "aims at refuting the established syllogisms of the Naiyāyikas by suggesting counter syllogisms on the same lines. The opening verse runs:

Svapakṣasiddhiṃ kila ye kathañcana
prakalpya vāñchantyanumānalīlayā,
Viracyate tatsadṛguktigumbhitair-
dvitīyapakṣairiha tadviḍambanā.

Those who want to establish their position by means of some kind of syllogism of inference are mocked at by the countersyllogisms made on the same lines. By this it is clear that the author does not aim at establishing any view of his own in this work, but that he only wants to shatter the views of the opponents. In raising these countersyllogisms the author employs what is called *mahāvidyā*.

Mahāvidyā is a positive probans which being present in the subject proves the existence of a positive-negative probandum by virtue of its being not explicable otherwise. (A definition is quoted from the *Mahāvidyāviḍambana*: cf. below.)

It is 'mahā' because it is free from fallacies of *asiddha*, *vyabhicāra*, *bādha*, and *upādhi*.

The method seems to have been invented by Kulārka."

36. (BHAṬṬA) (MAHĀDEVA SARVAJÑA) VĀDĪNDRA (also HARAKIṂKARA, ŚAṂKARAKIṂKARA, NYĀYĀCĀRYA, PARAMAPAṆḌITA)

This author, who is usually referred to as Vādīndra, gives us quite a bit of information about himself. He says he is a "religious councillor" (*dharmādhyakṣin*) of one Śrīsiṃha, and is patronized by Śrīkṛṣṇabhūpāla who is Śrīsiṃha's grandson. This would seem to indicate that Vādīndra flourished at the court of King Singhana of the Yādava dynasty of Devagiri (modern Daulatabad) during the first quarter of the 13th century.[1] This fits other references to him, e.g. by Vedānta Deśika, the Viśiṣṭādvaita leader, as well as

Bhaṭṭa Rāghava, who was Vādīndra's pupil and dates his *Nyāyasāravicāra* as written in 1252.[2]

Vādīndra wrote a work on the *mahāvidyā* syllogism entitled *Mahāvidyāviḍambana*, which "made him famous in both the north and south—it is referred to by Citsukha, Pratyagrūpa, and Amalānanda among Advaitins, Vedānta Deśika, and Śrīnivāsa among Viśiṣṭādvaitins."[3] Gopinath Kaviraj writes that Bhaṭṭa Rāghava "speaks very often of Vādīndra's large following."[4] Anantalal Thakur says that this work was his earliest.[5]

In addition, he wrote a commentary on the *Vaiśeṣikasūtras* called *Kaṇādasūtranibandha* or *Vārttika*. Thakur says this was his *magnum opus*, and that it was extensive.[6] The known manuscripts of it are all defective. A *Vyākhyā* has been edited by Thakur which he suggests is a shortened version of the big commentary, probably prepared by Vādīndra or one of his pupils.[7]

Another work of Vādīndra's is a commentary on Udayana's *Kiraṇāvali*, of which the section on qualities (*guṇa*) has been edited by Gopinath Kaviraj under the title *Rasasāra*. Thakur says that in the *Kaṇādasūtranibandha* the title of this commentary is given as *Haraprasāda—Kiraṇāvalidarpaṇaka*.[8]

Kaviraj thinks Vādīndra also wrote a commentary on Udayana's *Lakṣaṇāvali*, reasoning from a reference to such a work by one "*Vādīśa*" in Śeṣa Śārṅgadhara's *Nyāyamuktāvali*. Kaviraj thinks Vādīśa is Vādīndra.[9]

MAHĀVIDYĀVIḌAMBANA

Summary by E. R. Sreekrishna Sarma

Before presenting Professor Sreekrishna Sarma's summary it will be well to collect some materials explaining the sense of "*mahāvidyā*" The commentator Bhuvanasundarasūri says that the technique which goes under this name was initiated by the Nyāya-Vaiśeṣikas to help convince the Mīmāṃsakas that sound is noneternal. M.R. Telang thinks that Bhuvanasundarasūri, when he uses the term "*yaugācārya*" to designate the creator(s) of the technique, means to refer expressly to Kulārka Paṇḍita, the author of a brief treatise entitled *Daśaślokimahāvidyāsūtra* in which rules for framing such arguments are formulated.[10] Other scholars think that the term "yaugācārya" here merely refers to teachers following the Nyāya-Vaiśeṣika tradition, and that *kulārka* is an epithet of one of these and not a proper name.[11] In any case, nothing much is known of this Kulārka.

Prof. Sreekrishna Sarma writes:[12] The *mahāvidyā* syllogism is always of the only-positive (*kevalānvayin*) type, which means that the *hetu* is never a counterpositive of an absence. All things other than the *pakṣa* are thus the *sapakṣa*. So there is no *vipakṣa* and the *sādhya* is such that it can be described in three ways as not existing together in two things. (Bhuvanasundarasuri's commentary on MVV, p. 2). As an example we can take the usual *mahāvidyā* syllogism: "This sound is the substratum of an attribute which exists in a non-permanent thing and which does not exist in the given *pakṣa* as well as in things other than the *pakṣa* concurrently, because it is a knowable thing like a pot." Here the *pakṣa* is *this sound*, and everything other than *this sound* forms the *sapakṣa*. Such an attribute (as is mentioned) can then be *this-soundness*, which, although it exists in *this sound*, does not exist in any other thing and therefore can be described as not existing concurrently in the *pakṣa* and things other than the *pakṣa*. The *sādhya* also exists there because *this sound* is a knowable thing. If we take sounds other than this one, which form the *sapakṣa*, the attribute in them would be the mutual absence of difference from the *pakṣa*. For difference exists in both things that are different.

With regard to the given example, the pot has the attribute *potness*, which does not exist together in *this sound* and the things other than *this sound*. It is also knowable. Thus the syllogism satisfies all conditions of a true inference. When it is thus established that a particular sound has an attribute which exists in it, as well as in non-eternal things, that attribute cannot be anything but *this-soundness*. If *this-soundness* is also proved to be an attribute which exists in a non-eternal thing, by the method of elimination it is proved that *this sound* is not eternal. When thus one sound is proved to be noneternal, making it an example all sounds can be proved to be noneternal. This is in general the method and application of the *mahāvidyā* syllogism.

The *Mahāvidyāviḍambana* is divided into three chapters. Chapter One deals with the definition and explanation of the *mahāvidyā* type of inference given by the protagonists of the method. Answers to the objections raised against the *mahāvidyā* syllogism are given here. Seventy syllogisms to prove the noneternity of sound are mentioned and explained. The author himself says that as it is necessary to know what *mahāvidyā* syllogism is in order to refute it, he is giving a full account of the argument-form in this chapter to be followed by chapters aimed at refuting what is established in the first.

M. R. Telang writes: "He (Vādīndra) says that his efforts in the exposition of these syllogisms have a twofold object, viz.,

firstly it would remove the impression of the *mahāvidyāvādin* that his opponents do not understand the *mahāvidyā* syllogisms, and secondly, a disputant whose resources fail him during a discussion for want of accurate reasoning may employ the *mahāvidyā* syllogisms against the Buddhists, just as *jātis* (futile rejoinders) are employed when one fails to duly detect faults (in the arguments of his opponent)."[13]

The second chapter probes into the question as to what an only-positive *hetu* does actually mean. As the *mahāvidyā* syllogism is invariably an only-positive type of reasoning, a refutation of the possible definitions of "only-positive" is attempted here. The conclusion is that since the vital point in an inference is pervasion, which is in the form of absence of the *hetu* where there is absence of the *sādhya*, there can be no only-positive reasoning whatsoever as a part of inference. Thus the only-positive is totally rejected.

Mahādeva Vādīndra refutes the only-positive type of *hetu in toto* on the grounds that what is meant by "only-positive" cannot be determined. For the two definitions of the "only-positive," namely (1) "existing in all things" or (2) "not being a counterpositive of absolute absence," cannot stand the test. (p. 76)

The first explanation cannot be maintained since there can be no means through which the existence of a thing in all things can be known. Knowability (*prameyatva*), etc., are the only-positive *hetus* according to the votaries of the *mahāvidyā*. How could anyone, who is not omniscient, know that *knowability* exists in all things? To those who accept an omniscient creator or God this could indeed be explained. But what about the Mīmāṃsakas, who accept neither a God nor a yogi? No inference, either, can prove something as existing in all things. (p. 79) Such an inference could be only in one of the four forms of judgment given below:

(1) Knowability, etc., exist in all things.
(2) The state of being existing in all things exists in knowability, etc.
(3) All things are the substratum of knowability, etc.
(4) All things other than a particular thing (i.e., the *pakṣa*) are substrata of knowability, etc.

The first inference has the defect of unproved qualification (*aprasiddha viśeṣaṇatā*), for the *sādhya* cannot be shown as existing in any example that could be cited. The defect in the second inference is *āśrayāsiddhi*, because the state of being existing in all things, which is the *pakṣa* here, is not existent according to those who do not accept only-positive inference. Such a (proposed) *pakṣa* is no better than the (proposed) *pakṣa* in a statement about a flower in the sky. The

third inference cannot have any example. The fourth itself is an only-positive inference which cannot be a proof, as the validity of only-positive inference is what is under discussion. Besides, how can it be proved that all things other than a particular thing in question are the substratum of knowability? The argument that the existence of knowability, etc., in a known particular thing is proved by perception, while the same is proved in things other than the particular thing by inference, cannot stand either. The two means of perception and inference together cannot be proved to have the capacity to prove the knowledge of something which exists in all things. (p. 79)

The second definition, namely "not being a counterpositive of an absolute absence," is ineffective. How could one who does not accept an omniscient God or yogi be convinced that knowability, etc., are not counterpositives of absolute absences? (p. 81) Udayana and others have made an attempt to establish the existence of properties that are never counterpositives of absolute absences by the inference: "Being a counterpositive of an absolute absence is absent somewhere, because of its knowability." (p. 83) This is not at all effective, because the same argument cannot be applied to the properties which are accepted by Udayana and the others as only-positive ones, for if applied to them it would mean that such properties are also absent somewhere else.

Vādīndra offers his own argument to prove that there is no such thing as being a counterpositive of absolute absence. (p. 83) According to Vādīndra, an absolute absence is an absence which does not have a provable counterpositive at all. The example of such an absence is the absence of hare's horn. The type of absolute absence which the Vaiśeṣikas generally accept in the case of the absence of a pot on the floor is, according to Vādīndra, either a prior absence of a posterior absence or a mutual absence. The judgment "there is no pot now on this floor," according to Vādīndra, points to the absence of relationship between the pot and the floor, and not to the absence of the pot. The counterpositive in such a case is the relationship. Incidentally, he makes it clear that there can be no relational absence in any other form than those of prior or posterior absence. In conclusion, Vādīndra's contention is that counterpositiveness is a property (*dharma*) which cannot exist in a nonexistent thing like a hare's horn, and therefore an absolute absence does not have a counterpositive at all. (p. 87)

Consequent on the above argument Vādīndra makes an interesting statement in which he accepts only two types of absence, namely mutual absence or difference (*anyonyābhāva*) and absolute

absence (*atyantābhāva*). (p. 90) According to this view, before the production of an effect in its cause which are its parts, the non-existence of the effect is only an absolute absence of the relationship between the effect and its inherent cause. That it is called by a different name, viz., "prior absence," does not prove that there is prior absence as such. Similarly the absolute absence of the relationship between an effect and its cause afterwards is just named "posterior absence."

Another explanation given by Vādīndra is also interesting. He says that prior absence and posterior absence do not have any locus. The absence which is cognized as abiding in the inherence cause is the example of absolute absence. (p. 91)

Thus, after refuting the possible definitions of an only-positive *hetu*, Vādindra says that even the concept of something which is only-positive is itself self-contradictory. For example, knowability is accepted as an only-positive property. Let us pose the question whether *knowability* exists in *knowability*, or not. If the answer is "yes," how can it be that something can exist in itself? If the answer is "no," knowability itself becomes an instance where knowability does not exist. (p. 92)

After refuting the possibility of an only-positive property as shown above, Vādīndra argues that no *hetu* can have pervasion with an only-positive thing, for the pervasion which is the cause of inference is in the form of the absence of the *hetu* where there is absence of the *sādhya*. (p. 93) Evidently such a pervasion cannot be shown for an only-positive property which is said not to be a counterpositive of an absence. Incidentally, the definition of pervasion as "a relation lacking *upādhis*" is refuted. (p. 94) At the end, Vādīndra ridicules the only-positive inference: he concludes that the only-positive, which keeps company with the *mahāvidyā* who wanders about without any modesty or check, has to undertake self-immolation as a necessary expiation. (p. 98) He also states that neither the author of the *Vaiśeṣikasūtras* nor that of the *Bhāṣya* on them has mentioned only-positive inference. The later commentators who accept only-positive inference are not to be followed. (p. 98)

The third chapter strives to show that the defect of *upādhi*, for avoiding which the only-positive type of syllogism is adopted, is present in the only-positive type too. (pp. 99-150) Besides, the *mahāvidyā* syllogisms are shown to have the fallacies of *viruddha*, *anaikāntika*, and *satpratipakṣa*. It is also demonstrated that the *mahāvidyā* syllogisms can be contradicted by other syllogisms of the same kind. Thus the validity of *mahāvidyā* reasoning is shown to be

doubtful. Moreover, the differences among the various types of *mahāvidyā* syllogism are pointed out. E.g., some set to nought theories accepted by one's own school, others are self-contradictory, still others prove something which is not intended. The conclusion is that any number of *mahāvidyā* syllogisms cannot prove the noneternity of sound. But this was the purpose for them set forth by Kulārka Paṇḍita. Thus the *mahāvidyā* does not serve any purpose either in proving some truth or in leading to success in a controversy.

ṬIKĀ on Udayana's GUṆAKIRAṆĀVALĪ, also known as RASASĀRA

(Summary by Gopikamohan Bhattacharya)

This is a commentary on a section of Udayana's *Kiraṇāvali*, specifically the section from the beginning of the chapter on quality (*guṇa*) up to the point where Udayana turns to epistemological matters in the course of explicating the notion of judgment (*buddhi*). Page references cited following "E" in the summary below refer to pages in the edition by Gopinath Kaviraj (B3034). Numbered sections correspond to those sections in the summary above of Praśastapāda's *Padārthadharmasaṃgraha* upon which Udayana and Vādīndra are commenting.)

71. (E12-16) The noninherence cause is defined as that whose causal capacity is derived from its proximity to the inherence cause. This definition is criticized by an objector, who argues that the definition is overpervasive.

Objection: Consider a cloth and a yarn which (with others) composes it. The cloth inheres in the yarn and is thus "proximate" to the yarn. And the yarn, together with the cloth, is an inherence of the number *two* which inheres in them. Thus the cloth, being something which is a cause (of the number *two*) and which is proximate to the inherence cause (namely, the yarn), must be a noninherence cause if the definition is correct. But clearly, being a substance, it should not be included within the scope of the definition, and so the definition must be incorrect.

Answer: No, for the definition requires that the causal capacity be *derived from* its proximity to the inherence cause. In the case of the cloth and the yarn and the number *two*, the cloth has the capacity, in conjunction with something else, to be the inherence cause of the number *two*, regardless of what kind of thing it is proximate to.

Objector: Limited size (*avacchinnaparimāṇa*) is a necessary condition for a substance to be capable of motion. Thus it is a causal condition in the production of motion, and since it inheres in the substance which moves, it is therefore "proximate" to it—and indeed its causal capacity is derived from its proximity to that substance, the inherence cause of the motion. So this limited size should be the noninherence cause of motion.

Answer: I should not care to say that limited size has any causal function in this case, but supposing that it does, then you are quite right, it would be properly classified as a noninherence cause. By the same token, such things as impetus (*vega*) will be noninherence causes, e.g., in the case of striking (*abhighāta*).

Objector: What about weight in the case of striking—isn't that also a noninherence cause?

Answer: No, for in this case the relation between the alleged "cause" and its effect is not that of direct causation. Weight does not directly cause striking; rather, weight inheres in the same locus as does the motion produced by striking.

Objector: If you exclude indirect relations from the scope of causal relations in this way your definition will underextend. For consider desire and aversion, which are said to be the causes of effort, merit, and demerit, etc. Here the desire (say) and the effort it produces are in fact related by coinherence in the same locus (the self), yet you have just ruled out indirect relations of this kind. So desire cannot be a noninherence cause in this case, or if it is, it must cause effort in a different self, which is absurd.

Answer: The situation is altogether different when the locus of the qualities involved is a self or *ākāśa*. The definition, to be sure, does not apply to qualities of selves, but not because the relation involved is coinherence in the same locus. For in the case of qualities of the self there is no reason to suppose that the two qualities—desire and effort—qualify the same "part" of the self. The analogy is with the case of the production of sounds in *ākāśa*. When one sound generates subsequent sounds in a series, the several sounds relate to different points of space although the locus, the *ākāśa*, remains a single, all-pervading entity. In the same fashion desire and effort may relate to different "points" in the all-pervading locus, the self.

84. (E19-40) The Vaiśeṣika holds that qualitative changes occur in atoms under the influence of heat. Due to the impact of heat the dyads are decomposed; then another impact of heat causes change in the qualities of the atoms; and last of all again under the

influence of heat the atoms with their changed qualities combine to form new dyads.

Schematically, the process of quality destruction in the process of cooking may be presented thus:

(where $t_1 .. t_n$ are moments of time)

Series A:

t_1 : (1) impact of heat on the dyad

t_2 : (2) destruction of the contact between the atoms composing the dyad, together with

(3) motion of the fiery particles in contact with the atoms (thus generating more heat)

t_3 : (4) destruction of the dyad, together with

(5) destruction of the contact between the fiery particles and the atoms

t_4 : (6) destruction of the dark color of the pot

The process of producing the new (red) color of the pot is as follows:

Series B:

t_1 : (7) impact of heat on atoms

t_2 : (8) motion in the atoms, together with

(9) creation of new (red) color in atoms

t_3 : (10) contact between the atoms

t_4 : (11) creation of the dyad

The question is raised as to which moments in the two series correspond, specifically, at which moment in the first series the red color is created in the atoms.

Opponent: (7) occurs simultaneously with (4), and (9) with (5), so that the very same impact of heat which destroys the dark color creates the new red color.

Answer: No. The function of the heat which arose at t_2 in Series A spends itself then and is destroyed at t_3 in Series A. So the impact of heat which destroys the old color must be different from the impact of heat which creates the new color.

Opponent: All right then; let us say that (5) occurs at the same moment as (6), so that the impact of heat involved in (3) will occur at the moment immediately preceding the moment when (6) occurs, as well as the one at which (9) occurs.

Answer: No, for even then that impact of heat cannot serve as the noninherence cause of the destruction of the dark color, since a noninherence cause must not only exist at the moment when the effect is produced, but also at the next moment—when it has come into existence. Since the impact of heat which occurs at t_4 in Series B is not efficient to produce the creation of the new color, because

that impact does not immediately precede that creation, it follows that (6) and (9) are not co-temporaneous and need distinct impacts of heat to bring them about.

85. (E40-57) Number is a quality, and is distinct from the substance(s) in which it inheres. Its difference from them can be proved from expressions such as "This is a pot," where the substance and number appear as qualificand (*viśeṣya*) and qualifier (*viśeṣaṇa*) respectively. The notion "one" in "This is a pot" is different from "potness," since such a notion occurs likewise in the case of cloth, etc.; furthermore, *potness* inheres in many individual pots at one and the same time, whereas a number *one* inheres in only one substance.

Turning to the number *two*, Vādīndra, in defending Udayana's distinction between the number *two* (a quality) and the property *twoness* (a universal), answers an objection.

Objector: Since *oneness* and *twoness* inhere in the same locus (a pair is both one pair and two things), the two universals must be identical. But if they are identical, how can you explain the difference between the numbers *one* and *two*? You cannot say that one has a property the other lacks, since I have just established that they share both properties.

Answer: The number *two* arises from enumerative cognition (*apekṣābuddhi*).

Opponent: No, the difference is this : the number *one* inhering in an atom is the noninherence cause of the number *two* inhering in the dyad as well as the noninherence cause of the number *two* in the pair of atoms, but the difference is that while the inherence cause of *one* is the dyad, the inherence cause of *two* are the two atoms.

Answer: That does not explain the difference, since the pair of atoms is identical with the dyad.

Opponent: Then the difference is that the prior absence of *one* is different from that of *two*.

Answer: No, for this is not found to be the case. Our view, that enumerative cognition effects the distinction, can be proved by the following argument:

> The number *two* (in pot and cloth) is destroyed by the destruction of (that enumerative cognition which is) its instrumental cause,
>
> Because the number *two* is the quality of a pair (such as pot and cloth).
>
> Whatever is a quality is destroyed by the destruction of its instrumental cause,
>
> Like *many* (*bahu*),

Unlike dyads (which are not destroyed by the destruction of their instrumental causes).

Opponent: If the cause of the production of numbers such as *two*, *three*, etc., is simply enumerative cognition plus the prior absence of each number in the series, then one and the same enumerative cognition should produce the whole series, since the two conditions sufficient for the production of the series are present. I.e., when the conditions for the production of *two*—viz., enumerative cognition plus prior absence of *two*—are present, the conditions for the production of *three*—viz., enumerative cognition plus prior absence of *three*—are also present, and so on for the rest of the number series—so they all should be produced at once, which is absurd.

Answer: No, the cause of the production of *three*, e.g., is (1) enumerative cognition involving a specific number *n* plus (2) prior absence of that particular number *n*. The prior absence of other numbers is irrelevant to the production of a specific number.

86. (E57-65) Vādīndra, following Udayana, defines size as that quality which is the ground for using the expression "measure" (*māna*), where that expression is used in relation to something other than number or weight.

Opponent: Judgments of size do have to do with judgments of number, contrary to your definition. E.g., a pot is judged to have "large" (*mahat*) size because it is found to have many (*bahu*) ultimate constituents.

Answer: No. The minimum perceptibilium (*truṭi*, a triad of pairs of atoms, called "the triad" for the purpose of the following argument) is held to have large size, even though the number *many* (i.e., *more-than-two*) cannot be perceived in it, since its constituents are below the threshold of perception. Furthermore, large size is sometimes produced by loose contact (*pracaya*, as in a cotton ball).

The process of destruction of the large size of a triad is as follows: first, there occurs the disjunction of the dyads from each other; second, the atoms in each dyad become disjoined from each other; third, this brings about destruction of the triad; and fourth, as a result the large size of the triad is destroyed.

The large size of a triad is not produced by impetus (*vega*). Impetus is responsible for the contact between the dyads composing the triad, but that impetus has been destroyed by the time the triad is produced and so cannot be counted as a cause of the large size of the triad.

And finally, the large size of the triad is not produced by the

size of its constituent dyads, since there is no proof of that.

So the large size of the triad is produced by the manyness of its constituents (even though the judgment that a triad is large is not produced by a perceptual judgment that its constituents are many in number, since we are unable to perceive its constituents).

Opponent: No, there is proof that size can be a cause in the production of size—proof in the form of an inference:

The size of the dyad is the noninherence cause in the production of the large size of (larger) things;
Because the size of the dyad is the size of that which is the inherence cause of the size of those larger things;
Like the size of yarn (which is the inherence cause of cloth).

Answer: Your inference is vitiated by an *upādhi*, viz., "not being small (*aṇu*) size." Yarn is already of large size, while dyads are of small size. So your inference fails.

On the other hand, I can produce an inference to refute the idea that the size of the dyad produces the size of the triad.

The size of the dyad is not the cause of the size of the triad,
Because it is a size,
Like the size of a pot.

Opponent: This inference of yours involves the fallacy of *satpratipakṣa*, since there is a counterinference which is equally justified and which proves the contradictory of the *sādhya* of your inference.

The size of the dyad is the cause of the size of the triad,
Because it is the size of the dyad.

Answer: No, this last inference is invalid, since it commits the fallacy of *asādhāraṇahetu*. It is required of a valid inference that the *hetu* should exist in the locus of the *sādhya*. The locus of the *sādhya* is the triad (which is the locus of *size of triad*), but *size of dyad* does not occur in the triad. So your inference is invalid, and mine carries the day.

87. (E65-71) In Vaiśeṣika separateness is a quality. Bhāsarvajña identifies it, however, with mutual absence. Vādīndra explains Udayana's rejection of Bhāsarvajña's position. He then brings in another opponent who has a somewhat different explanation.

Opponent: Separateness is the *vaidharmya* of cloth from pot.

Answer: What does *vaidharmya* mean? Does it mean (a) that in the difference of cloth from pot cloth possesses an attribute not belonging to pot? If so, putting the word for pot (*ghaṭa*) in the ablative case (*ghaṭāt paṭaḥ pṛthak*) would be inappropriate. Or does it mean (b) that the two things, cloth and pot, have distinct qualities? If so, we ought to say that the atom before baking is

separate from the same atom after baking, which is absurd.

91-93. (E87-104). In this section Vādīndra discusses primarily the concept of *tarka* and its role in determining the concomitance between *s* and *p*. *Tarka* facilitates (*anugrāhaka*) the operation of inference. Vādīndra points out the difference between judgments gotten from inference (*anumiti*) and those resulting from *tarka*. In inference we have valid judgments when we judge that the *h* pervaded by *s* exists in *p*—i.e., when we judge correctly that there is *pakṣadharmatā*. In *tarka*, however, the *pakṣadharmatā* is an instance of superimposition. We assume *pakṣadharmatā* hypothetically in order to go on to prove its absence.

Thus in *tarka* the relation between *h* and *p* is assumed or "superimposed" (*āropa*). The purpose of *tarka* is to prove that the contradictory of the opponent's assertion is true. Failure to lead to the fulfilment of this objective leads to the fallacy called *viparyayaparyavasāna*—failure to culminate in the proof of the opposite proposition. Following Udayana, Vādīndra rejects the view that *tarka* serves to remove doubt. For him, *tarka* is required in order to remove a person's desire to take as truth the opposite of the correct position (*vipakṣajijñāsānivṛtti*). Such a desire obstructs inference and hence its removal is a perquisite for the operation of inference.

Unlike Vācaspati Miśra, Udayana and Vādīndra do not think that *tarka* serves in any way to eliminate doubt. Doubt results from our failure to apprehend a distinguishing mark of something, coupled with our recognizing certain features common to both of two alternatives. E.g., in "it's either a tree or a man (but I don't know which)" we cognize common features without cognizing distinct ones. This doubt can only be eliminated when the distinctive features of one of the two things become cognized, and this is accomplished by perception, not by *tarka*.

KAṆĀDASŪTRANIBANDHA or VAIŚEṢIKASŪTRAVĀRTTIKA

Portions of this work are available in manuscript according to Anantlal Thakur.[14] Furthermore, he has edited an anonymous commentary which he construes to be a summary of Vādīndra's views concerning the interpretation of the *Vaiśeṣikasūtras*. Thakur's introduction to this edition (B56) (Darbhanga, 1957) points out some of the discrepancies between Vādīndra's *sūtrapāṭha* and also demonstrates his author's acquaintance with Ātreya.

37. BHAṬṬA RĀGHAVA

As was mentioned above, this author tells us he is the pupil of Vādīndra.[1] His only known work is a commentary, *Vicāra*, on Bhāsarvajña's *Nyāyasāra*. In that work he gives the date of its composition in an ambiguous way, so that it can be construed as either 1174 or 1274 *śaka*. If the former is correct, it equals A.D. 1252, if the latter, 1352. Gopinath Kaviraj prefers the former and cites some evidence about the manuscript to support this.[2]

P. L. Vaidya's notes on his edition of the *Nyāyasāra* provide some information about Bhaṭṭa Rāghava's views.[3]

(1) Rāghava mentions and criticizes one Rāmabhaṭṭa, who tried to construe the word "*samyak*" ("direct") in the opening line of Bhāsarvajña's material on inference to qualify the term "invariable concomitance." His interpretation is criticized by Rāghava.

(2) "Rāghava says that *avinābhāva* (invariable concomitance) is the same as *vyāpti* (pervasion)."

(3) Rāghava distinguishes the *prācīnāḥ* or old school, who limit inferrable things to those which people with our kind of organs can receive. Bhāsarvajña differs; the test is whether the thing is fit to be known by means of the instrument called perception. E.g., a prior concomitance established by perception is inferrable. Rāghava here cites Vādīndra (whom Vaidya believes to be "a fellow student"!).

(4) Rāghava says that there are really only five fallacies of the *hetu* but that Bhāsarvajña gets six by splitting one of them into two.

38. DIVĀKARA (UPĀDHYĀYA) or VILĀSAKARA

The information given here on this author, who wrote several works, is due almost entirely to the researches of D. C. Bhattacharya.[1] He seems to have commented on four of Udayana's works, as well as on Śrīharṣa's *Khaṇḍanakhaṇḍakhādya*. Bhattacharya estimates his date as the first half of the 13th century on the basis of the fact that a manuscript of a fragment of a *Nibandhoddyota* dates from between 1272 and 1283.

This *Uddyota*, on either Udayana's *Nyāyapariśiṣṭa* or his *Pariśuddhi*, is one of the five works attributed to Divākara, of which only two are known to exist in extant manuscripts. The other is a commentary, *Parimala* on the *Nyāyakusumāñjali*, a manuscript of which exists in one of the Jain Bhandaras, according to Bhattacharya.

Evidence of the other three works is provided by references in

later literature. Pragalbha's commentary on Gaṅgeśa's *Tattvacintāmaṇi* refers to Divākara as many as fifty times, says Bhattacharya. Pragalbha implies that Divākara wrote a *Vilāsa* on the *dravya* section of Udayana's *Kiraṇāvali*. Mallinātha also refers to him as Vilāsakara, and this *Vilāsa* is cited as well by Pakṣadhara Miśra.

His commentary on Udayana's *Ātmatattvaviveka* is called *Āloka*.

The only information about his views that Bhattacharya can provide is this. According to Śrīdhara's *Nyāyakandalī* prepositions (*upasarga*) directly denote (*vācaka*). Udayana says no, that prepositions only elucidate the meanings of the verbs they are attached to (*dyotaka*). Divākara adopts a middle course. Prepositions are said to be *dyotaka* where they contradict the primary meaning of the verb, otherwise *vācaka*.

Umesh Mishra writes that "Divākara Upādhyāya flourished in Mithilā and was a Maithila Brāhmaṇa. His father was a court pandita of some Maithila king as has been mentioned by himself at the end of his commentary (the *Uddyota*)." Mishra cites some additional references to Divākara from the later literature.[2]

39. VĀDI VĀGĪŚVARA

V. Raghavan tells us that he has inspected a manuscript at Bikaner of this author's *Mānamanohara*.[1] It is a Vaiśeṣika work concerning seven categories in seven sections, defending each category mainly against Mīmāṃsā and Advaita arguments, occasionally citing "Saugata" and "Sāṃkhya." "There seems to be a gap in the portion dealing with *viśeṣa*," he adds. The categories of *śakti*, *sādṛśya*, *pradhāna*, *tamas* are refuted. The last section deals with *mokṣa* along Vaiśeṣika lines, criticizing Advaita. The work mentions Vyomaśiva and Prabhākara.

The author was a Śaiva, Raghavan says.[2] He is referred to by Ānandānubhava (see below), who calls him "vāmamatānusārin." Raghavan suggests he may have been a Pāśupata. He wrote another work, according to his own testimony: its title was *Nyāyalakṣmīvilāsa*.

E. P. Radhakrishnan has provided us with a good deal of information concerning the views of Vādi Vāgīśvara, based upon what other writers attribute to him.[3]

(1) "In connection with the discussion of the nature of *anubhūti* (experience) Citsukha introduces different views held by various schools of thought and refutes them one by one, finally establishing the superiority of the Advaitic standpoint. For the Advaitins,

anubhūti is *svataḥ-siddha*, self-established. The Naiyāyikas hold that if *anubhūti* be held as self-established, so far as experience is concerned, it will cease to be a *vastu*, *padārtha*, entity or object, because it is no more a *vedya* (knowable). For, with them knowability is the test of predicability. In answer to this it need be said that *vedyatva* (knowability) does not prove objectivity for the simple reason that objectness and knowability are not invariably connected. Further it is not knowability that establishes *vastutva*, but *sphuraṇa* or *prakāśamānatva*.

Here the author of the *Nayanaprasādinī* refers to an *anumāna* put forth by the author of the *Mānamanohara* as follows: "etena etadapyapāstam, yadāha mānamanoharakāraḥ 'jñānam pratyakṣavedyam, vastutvāt, ghaṭavat' iti". From this we have to suppose that Vāgīśvara, like the Naiyāyikas, also held *parataḥ prāmāṇya* of knowledge and supposed the validity of a cognition to be known by perception even as a jar is experienced.

(2) "Citsukha raises the objection put forth by Vāgīśvara regarding the self-luminosity of *ātman*. The objection arises thus: Where does *jñāna* reside? Evidently the answer will be, in *ātman*. If so, *ātman* and consciousness are related as qualification and the qualified, and *ātman* will no more be *sarvajña* (omniscient), or of the nature of intelligence. *Mānamanohara* anticipates a difficulty here by way of a counterobjection. *Jñāna* does not reside in *ātman*, but it has its locus in *jñāna* alone, just as existence. The possibility of this counterobjection is set aside soon. There is a school of thought which holds *jñāna* not as an attribute of *ātman* but *ātman* itself. With respect to them no relation between *jñāna* and *ātman* can be said to exist, for they are one and the same. Thus the *āśraya* for *jñāna* is *asiddha* and the doubt which has for its basis *ātman* as the substrata of consciousness does not at all arise.

(3) "The author of the *Mānamanohara* is credited with another objection. He says that *śruti* itself gives the relation between *draṣṭā* and *dṛṣṭi* and thus how can *āśrayāsiddhi* for *jñāna* be held ?...Further, if the difference between *īśvara* and *jīva* be accepted, who is to be held as related to *dṛṣṭi* ? It cannot be *jīva* for want of *nityajñāna*. The author of the *Mānamanohara* said that this *śruti* relates *nityajñāna* with *īśvara*. (The '*śruti*' here is Bṛhadāraṇyaka Upaniṣad 4.3.23: "na hi draṣṭuḥ dṛṣteḥ viparilopo vidyate").

(4) "The author of the *Mānamanohara* also denied *tamas* as a separate entity in accordance with his Vaiśeṣika bias. How to explain the experience of *nīlaṃ tamaḥ* (black darkness) ? He says that the color sense in darkness is a case of *bhrama* (error) and cites Śālika-

nātha in support. The usage *'nīlaṃ tamaḥ'* can be explained as a case of *upacāra* or secondary significance.

"Further, if at all *tamas* is to be accepted as a separate *padārtha* it should be the object (*viṣaya*) of a cognition. That is not the case. For an object consists of parts, which are themselves different from the whole. This is Mānamanoharakāra's definition of *viṣayatva*: "uktaṃ ca mānamanoharakāreṇa—śārīrendriyavyatiriktaḥ avayavī hi viṣaya—iti."

(5) "The author of the *Mānamanohara* is referred to as finding objection to (Citsukha's) use of *arthāpatti*. He contends as follows: In places like *śuktirājata*, *asat* may not exist here, but it can safely reside elsewhere; for in the particular place as specified there is no *khyāti* or *bhāna* of *asat*. *Bādha* (sublation) is possible, not in the particular form derived by the Advaitins, but in a different manner. Further, what is said—"asato bhānam anupapannam"—is unreasonable. Because when we use the word *asat*, some idea is conveyed by it. Otherwise the word will have to be deprived of its capacity to convey the idea, which naturally leads to the denial of any sense to any word or sentence.

(6) "Further, what is *sat*? Is it that which has *sattā*, or is it *abādhya*, or does it mean *brahmasvarūpa*? Obviously the first alternative cannot be held. For in the Advaitin's line of thought this universe is accepted to have *sattā* and the same is said to be *bādhya* too. This, according to the realistic Mānamanoharakāra is a contradictory statement. For, as he points out, if it be held that what is (exists) cannot be sublated, the cosmos or *prapañca*, insofar as it has been given *sattā*, could not be denied existence. This would mean that *prapañca* could not be sublated at a later moment. Thus the invariable concomitance between *sat* and *abādhya* falls to the ground.

Nor does the second alternative hold good. That is, *sat* cannot be said to mean *abādhya*. If so, the word *abādhya* will be a synonym for *sat*, in which case, instead of saying "yat sat, tadabādhyam," it can very well be said "yadabādhyam tadabādhyam." This makes no difference between the establisher and what is sought to be established.

The third alternative, *sat* is *brahmasvarūpa*, also is faulty, for it is *siddhasādhana*. By this Vāgīśvara means to say that the realists also do accept *sattā* (reality of existence) to Brahman, and what the Advaitin seeks to establish by saying *sat* is *brahmasvarūpa* is already known to them. Thus the Advaitin's argument loses its value, since it does not establish any new fact, peviously unknown to the realists. That is to say, the contention *'sat* is *brahmasvarūpa'* becomes invali-

dated insofar as it does not satisfy the conditions of a *pramāṇa*.

(7) "In answer to the Advaitin's proof of *abheda* by arguing that there can be no difference between *bheda* and *bhedin* on pain of *anavasthā*, Vāgīśvara says : The *anavasthā* pointed out above does not in any way endanger the concept of *bheda*; for there is no *pramāṇa* to hold a second *bheda*. Further, everybody is well aware of the common experience and usage that *bheda* and *bhedin* are different and are not one. Nor can a second *bheda* be inferred on the authority of one *bheda*. Thus if difference between *bheda* and *bhedin* is sought to be refuted on the ground of *anavasthā* it is not possible. For the *anavasthā* springs up only later. The first *bheda* is more powerful than the second, for it happens to be the *upajīvya*. Thus *anavasthopādāna* with regard to *bheda* is not reasonable. *Bheda* cannot also be said to be *anirvacanīya*, for lack of sound reasons. This is the position of Mānamanoharakāra."

(8) Citsukha mentions a number of Vāgīśvara's definitions of various technical terms of Vaiśeṣika.

40. NĀRĀYAṆA SARVAJÑA

D. C. Bhattacharya notes that this writer is said by Ānandapūrṇa Vidyāsāgara to have improved on Udayana's definition of *upādhi*. Bhattacharya suggests that he may be identical with the commentator on *Manusaṃhitā* who flourished in the 13th century. Śaṃkara Miśra also seems to refer to him in his *Upaskāra* in the section on disjunction.[1]

On the other hand, Umesh Mishra finds that Ānandapūrṇa, in his commentary on the *Khaṇḍanakhaṇḍakhādya* of Śrīharṣa, refers explicitly to the view of Nārāyaṇasarvajña which he says has been refuted by Śrīharṣa. Assuming this means that Nārāyaṇa Sarvajña lived prior to Śrīharṣa, Mishra dates him in the 12th century.[2]

41. KEŚAVA MIŚRA

This author is known for one work only, the handbook entitled *Tarkabhāṣā* which has been edited and translated a number of times. Ganganatha Jha affirms[1] that he lived in Mithilā, and D. C. Bhattacharya gives reasons[2] for thinking that this is so. There has been some discussion concerning his date, but the best guess would seem to be mid-13th century.[3] Umesh Mishra notes the interesting fact that of the some twenty commentators who have commented on the *Tarkabhāṣā* "a large majority...hail from the South," and "Govardhana is the only commentator from Mithilā so far known."[4]

TARKABHĀṢĀ

Summary by Karl H. Potter

"E" references are to the edition of S. M. Paranjpe, Poona 1909 (B3067).

"T" refers to the translation by Poul Tuxen, Kopenhagen 1914 (B3073). I follow Tuxen's topical division.

I. Method. (E1-8; T169-70) After a brief remark indicating that this book is a handbook for young pupils (there is no invocation), Keśava quotes *Nyāyasūtra* I.1.1 and explains it. The method of statement, definition, and investigation is reviewed.

II. Instruments of Knowledge. (E8-10; T170) The fruit of instruments of knowledge is right knowledge (*pramā*), which is explained as experience (*anubhava*) which is as-the-object-is (*yathārtha*).

III. Causality. (E10-26; T170-75) The *karaṇa* is the most effective cause. A "cause" is defined as a necessary condition which is (1) existent prior to the effect, (2) not unessential (*ananyathāsiddha*). To explain the second requirement: the color of the threads, though it must exist prior to the effect (the cloth), is not a cause of the cloth, since the color exhausts its powers in producing the color of the cloth and to adduce it as a cause of the cloth itself would be too complicated.

The three kinds of causes and their distinctions are reviewed. An objector is introduced, who points out that the jar cannot be the inherence cause of its own color, since the jar and its color come into existence simultaneously. Keśava's answer is to deny the alleged simultaneity. The substance first comes into existence, then its qualities; this is defended by pointing out that since the pot and its qualities are different they must have different causes, and the simplest way to assure this is by the hypothesis offered.

The objector points out that an implication of this is that a jar will be invisible when it is first produced, but Keśava is not bothered by this: perception of the jar only occurs at the next moment after its production.

IV. Perception. (E27-31; T175-78) The instrument of knowledge called perception is sometimes a sense organ, sometimes the contact between sense organ and object, and sometimes it is a judgment. It is the sense organ when the result is a nonpropositional judgment. In such cases the sense-object-contact is the intervening operation (*avāntararvyāpāra*). But when the result is a propositional judgment, the instrument is the sense-object-contact. Finally,

when the results are taken to be the reactions of attraction or repulsion to the object, the instrument is the nonpropositional judgment, and the propositional judgment is the intervening operation.

The six kinds of sense-object-contact are described and illustrated.

V. Inference. (E31-45; T178-88) Inference is identified with *liṅgaparāmarśa*, which is explained as that which makes us apprehend the object as subsumed under the pervasion. This is explained at length and defended against alternative suggestions. Inference for oneself is distinguished from that for others, and described; and then inference for others is explained. It is divided into positive-negative, only-positive, and only-negative. The first must satisfy the usual five conditions in order to be valid; the second must satisfy four (since the requirements involving the *vp* does not apply), and likewise the third (since the requirement involving the *sp* does not apply).

Discussing fallacies, Keśava identifies five: *asiddha*, *viruddha*, *anaikāntika*, *prakaraṇasama*, *kālātyayāpadiṣṭa*. An alternative name for the *prakaraṇasama* is *satpratipakṣa*.

VI. Comparison. (E45; T188) The result of this instrument is said to be an understanding of the relation between the word *gavaya* and the object to which it applies.

VII. Testimony. (E46-51; T188-190) The three requirements of sentential meaningfulness—expectancy, fitness, and contiguity—are illustrated. *Objection*: It is not the words which have to satisfy the requirements, but the objects; and even this is not right: since expectancy, etc., involve someone expecting, etc., it must be the attributes of something conscious which satisfies the requirements. *Answer*: True, but the words are said to meet the requirements in a figurative usage. And as for the requirement of contiguity, this is not a figurative but a literal usage, for it is the *words* that must be contiguous.

VIII. Other Instruments. (E51-55; T190-93) Presumption is shown not to be a separate instrument but a kind of inference. Likewise, negation (as an instrument) is said to be perception of absences.

IX. On Validity. (E55-62; T193-196) The Mīmāṃsā theory of instrinsic validity (*svataḥprāmāṇya*) is explained and refuted by rejecting the hypothesis of a property of *knownness* as distinct from the very nature of any object of knowledge.

Judgments are apprehended by internal-organ-perception (*mānasapratyakṣa*), but their validity is apprehended by inference

from the successful activity they engender.

X. Objects of Knowledge: Self, Body, Sense Organs. (E62-69; T196-98) The objects are listed following the *Nyāyasūtra* fashion. The discussion is unremarkable. Objects (i.e., the Vaiśeṣika categories) : Substance. (E69-78; T198-203) The categories are listed as six (absence is missing). The discussion of substances follows the usual pattern. Qualities (E78-86; T203-07) The usual 24 are listed. Motions, Universals, Individuators, Inherence (E86-87; T207-09). No surprises here. Absences. (E88; T209) Here this is said to be the seventh category. It is divided into two kinds: relational and mutual. Relational absences include prior, posterior, and absolute absences; mutual absence is said to be that whose counterpositive is identity (*tādātmya*). Judgments. (E89-92; T210-12) Returning to the *Nyāyasūtra's* twelve categories, Keśava next takes up judgments (*buddhi-upalabdhi-jñāna-pratyaya*). Just as the Vaiśeṣika system of ontology is packed into the Nyāya category of objects, so here the school's epistemological thought is summarized under this heading. Judgments are of two kinds—experience and memory. Experiential judgments are either true or false: the true ones are those which are spoken of their objects as they are (*yathārtha*). The false ones are divided into doubtful, erroneous, and *tarka* judgments. Memory is also subdivided into true and false. In sleep, says Keśava, every judgment is a false memory (since we mistakenly think the things are presented to us here and now). Judgments have no form (*nirākāra*).

The internal organ, activity, defects, future life, fruits, and pain are briefly defined. Liberation is explained.

XI. Doubt. (E92-97; T212) Doubt is divided into three varieties: (1) resulting from noticing the general property and overlooking the specific one; (2) resulting from difference of opinion, when the specific property of the thing is not recognized; (3) resulting from recognizing only properties which are too specific and thus do not settle the question about which the doubt arises.

XII-XVII. Purpose, Example, Tenets, Members of the Argument, *Tarka* and Ascertainment. (E93-97; T212-14) These are explained in the usual way.

XVIII. Discussion. (97-100; T214) Discussion is divided into eight "rebukes" (*nigraha*): "too little" (*nyūna*), "too much" (*adhika*), "giving up the tenet" (*apasiddhānta*), and the five fallacies of the *hetu*.

XIX-XXII. Wrangling, Cavil, Fallacies of the *hetu*, and Quibble. (E100-111; T214-21) These are reviewed, with a long

section going over the five fallacies once again with generous examples.

XXIII. Futile Rejoinders. (E111-112; T221-22) Only two of the many varieties are mentioned here, the ones called *utkarṣasama* and *apakarṣasama*.

XXIV. Ways of Losing an Argument. (E112-113; T222) A few of these are briefly mentioned.

42. ĀNANDĀNUBHAVA or VIŚVANĀTHĀŚRAMA

This author is well known to students of Advaita Vedānta, and all but one of his known works follow that school's thought. The exception is his commentary entitled *Nyāyakalānidhi* on Bhāsarvajña's *Nyāyasāra*, which has been printed recently in the edition by S. Subrahmanya Sastri.[1] Pandit Subrahmanya Sastri reports that the contents of this commentary are unremarkable, it being a simple and straight forward interpretation. The manuscript breaks off in the portion on *vipratipatti*, picks up again at the section on only-positive inference. The colophons at the end of the second and third chapters give the author's name as Ānandānubhava, but the benedictory verse says his name is Viśvanāthāśrama. Pandit Subrahmanya Sastri argues that it is quite possible the work is that of the Advaitin Ānandānubhava, for the first chapter of another of this author's works, the *Padārthatattvanirṇaya*, follows the *Nyāyasāra* closely.[2]

As for his date, we know that Citsukha quotes from Ānandānubhava, and Ānandānubhava quotes Ānandabodha. Since Citsukha flourished in the late 13th century, and Ānandabodha's dates are 1200 to 1297 according to P. K. Gode, we may safely date Ānandānubhava in the middle of the 13th century.[3]

43. PRABHĀKAROPĀDHYĀYA

This Maithili author lived in the 13th century also.[1] He is said to have been the first commentator on Vallabha's *Nyāyalīlāvatī*, and also probably commented on Udayana's *Pariśuddhi*, *Ātmatattvaviveka*, and *Nyāyakusumāñjali*. According to Pragalbha, Gaṅgeśa quotes Prabhākara's definition of "specific" (*asādhāraṇa*). According to Jayadeva and Mathurānātha, Gaṅgeśa is referring to Prabhākara too, when he cites "ata eva kara."[2] The commentary on the *Nyāyalīlāvatī* is referred to many times by Vardhamāna and Pakṣadhara. The name of the commentary was apparently *Prakāśa*.[3] None of these works have been discovered, however.

44. ABHAYATILAKA (UPĀDHYĀYA)

This writer composed a large commentary on the *Nyāyasūtras*, *Bhāṣya*, *Vārttika*, *Tātparyaṭīkā*, and *Pariśuddhi*, manuscripts of which are available at Jaisalmer and Surat according to J. S. Jetly.[1] The work follows Śrīkaṇṭha's *Pañcaprasthānyāyatarka* by the author's own statement. He tells us that he is the pupil of one Lakṣmītilakagaṇi, clearly a Jain, as is Abhayatilaka himself, for he wrote *stotras* and *stavas* of Jain sentiment as well as a commentary on Hemacandra's *Dvyāśraya Mahākāvya*. He refers to a distinction among Vaiśeṣikas between the "old" (*jarad*) ones who accepted three instruments of knowledge, whereas the "new" (*nūtana*) ones accept only two. Jetly says the commentary is mainly concerned with the *Pariśuddhi*, and runs to 12,000 *ślokas*. Its name is *Nyāyālaṃkāra*.[2]

45. SONDAḌOPĀDHYĀYA

According to D. C. Bhattacharya, this "Sondaḍa was regarded in his time as the supreme leader of the social hierarchy in Mithilā."[1] He lived slightly prior to Gaṅgeśa, who refers to him in manv places. Thus we may date him in the early 14th century.

His best known contribution is a novel view about an additional kind of absence, one "whose counterpositiveness is determined by an essence pertaining to a different substratum" (*vyadhikaraṇadharmāvacchinnapratiyogitākaḥ*). This absence is therefore universally occurrent, and thus Sondada in a fashion rejects the doctrine of *anyathākhyāti*.[2]

46. MAṆIKAṆṬHA MIŚRA

Professor V. Varadachari contributes this account of this writer: "Maṇikaṇṭha Miśra was a native of Tīrabhukti, a part of Mithilā. He is the author of the *Nyāyaratna*, a logical text on the argumentative aspects of *Nyāya*. He is known to have written another treatise named *Nayacintāmaṇi*, which is now lost. This is stated by the author himself on two occasions. The first one is on p. 108 of the *Nyāyaratna*, where the author states that he dealt with the topic of *upādhi* in greater detail there. *Ṣaṭpakṣi*, *saptapakṣi*, and others are stated to have been discussed by him (p. 220 of *Nyāyaratna*) in the *Nayacintāmaṇiprapañca*, which seems to be no other than the *Nayacintāmaṇi* itself. It appears that the work contains a reference to the view which was held by Sondaḍopādhyāya. The author was in

favor of Advaita Vedānta. He must have lived before Gaṅgeśa, that is, about A.D. 1300."

D. C. Bhattacharya also makes a few remarks about Maṇikaṇṭha which are worth summarizing. He guesses that Maṇikaṇṭha was a Maithili scholar who was the "judicial chief of a certain king" somewhere outside of Mithilā. Bhattacharya thinks that the title of the lost work should be "Nyāyacintāmaṇi," and that it was a more elaborate work than the *Nyāyaratna*. He suggests that it may yet be turned up by culling over the manuscripts of the *Tattvacintāmaṇi*, since it must have covered much the same ground judging from Gaṅgeśa's frequent references to it.[1]

NYĀYARATNA

Summary by V. Varadachari

"E" references are to pages in the edition (B3268) by V. Subrahmanya Sastri and V. Krishnamacharya, Madras Government Oriental Manuscripts Library, 1953.

1. (E1) The work begins with an introductory stanza which mentions that the *Nyāyaratna* will help one to gain knowledge of everything.

2. (E7-11, including *kārikā* 2) *Tarka* is *reductio ad absurdum*. It plays an important part in inference. The third consideration of the mark (*tṛtīyaliṅgaparāmarśa*) is the direct cause of the rise of inferential judgments.[2] Recognition that the *pakṣa* is qualified by the *hetu*-property, recognition that the *hetu* is conditioned by *pakṣa*-ness which is qualified by pervasion, and the knowledge of pervasion are the stages leading to inferential judgments. *Tarka* operates on the basis of hypothesis. It is evident that hypothesis plays no part in the stages mentioned above, and so *tarka* cannot be the direct cause of the rising of inferential judgments. Under these conditions, however, it cannot be the indirect cause either.

In the case of knowledge of pervasion, however, it is necessary to show it to be adequate or flawless in order that it lead to correct inference. The pervader and the pervaded will have to be proved to be invariably concomitant. This is done by showing that they do not have variable concomitance, through *tarka*.

The absence of pervasion is not cognized as long as one judges concerning the *h* and *s* that they do not exist together. *Tarka* is useful because it removes the doubt that the two do not coexist.[3] Śrīharṣa (the author of the *Khaṇḍanakhaṇḍakhādya*) is cited as objecting that

the doubt cannot ever be removed since the judgment that *s* and *h* do not coexist is said to arise from doubt, and the proposal is to remove the doubt in order to nullify the judgment that the *s* and *h* do not coexist.[4] Maṇikaṇṭha is unimpressed by this objection : doubt, he says, is removed when a specific feature is noticed which distinguishes the objects or properties which give rise to doubt.

3. (E20-26) The topic of defining *tarka* is now taken up. Two definitions are noted and rejected. According to the first of these, *tarka* consists in the superimposition of the pervader due to the superimposition of the pervaded. However, this definition overextends to such a case as this : There may rise a judgment, with reference to smoke, of the form "this region possesses a column of dust and a *kiṃśuka* flower," where just prior to its rise we have apprehended the column of dust. Here the superimposition[5] of fire is apprehended only through the superimposition of the column of dust. Thus this definition has overextension to such a judgment. On the other hand, it has no applicability to a proper instance such as "if the guest were to arrive he would have to be fed," where the guest does arrive and is duly fed. Superimposition has no role in cases like these, yet they are proper cases of *tarka*. Finally, this definition has the defect of total inapplicability, since all kinds of *tarka* turn out to be correct.

The second definition is stated to be "the introduction of the pervader through the superimposition of the pervaded." This definition is not acceptable, since the word "introduction" means *tarka* itself and this leads to self-dependence (*ātmāśraya*).

The author defines *tarka* as "a particular universal which is included within the universal *judgmentness*." This does not make *tarka* include doubt, since the definition does not involve alternatives (*koṭi*). And it does not overextend to include ascertained judgments, for these are arrived at through perception. And if someone claims that the fault of crossconnection of universals is committed, no, for there is no such fault.

Another definition is offered by the author : "*Tarka* is the superimposition of the pervader which is the substratum of the effect that is related to a cause delimited by the superimposition of the pervaded."[6]

4. (E27-39) According to Maṇikaṇṭha there are five kinds of *tarka*, namely self-dependence, mutual dependence, circularity, infinite regress, and one that is different from these four. The first three may appear to get mixed up with each other because of their interdependence, but in reality they are distinct from each other since the conditions under which they arise are different from each other. Contradiction is considered to be the fifth kind of *tarka*, since it cannot be included

under the other four.

Maṇikaṇṭha does not recognize the case of undesired outcome (*aniṣṭaprasaṅga*), which is held by Udayana to be the fifth kind of *tarka*[7] as a type of *tarka* at all. He also rejects the classification of *tarka* into six kinds — the first four above, plus contradiction (*vyāghāta*) and counterargument (*pratibandhin*). These last two are brought by Maṇikaṇṭha under the fifth variety in his list, and the *anaikāntika* fallacy, respectively.

Other proposed varieties of *tarka* such as nonchoice (*avinigama*), abandoning (*utsarga*), cumbrousness of postulation (*kalpanāgaurava*), and economy in postulation (*kalpanālāghava*) are not varieties of *tarka*. Unsuitability (*anaucitya*), which Śrīharṣa[8] held to be a variety of *tarka*, is shown not to be a type of *tarka* but merely a way of losing an argument.

5. (E39-41) Corresponding to each of the five kinds of *tarka* is a type of argument which resembles that kind but is fallacious. Maṇikaṇṭha classifies these as varieties of *matānujñā*, one of the ways of losing an argument.[9]

6. *Pervasion.* (E42-55) Maṇikaṇṭha begins this section with a critical examination of the definitions of pervasion (*vyāpti*). He mentions the following eleven definitions and refutes each one of them.

1. Pervasion is a mere (*mātra*) relation.
2. It is a relation which does not wander (*avyabhicārin*).
3. It is invariable concomitance (*avinābhāva*).
4. It is a natural (*svābhāvika*) relation.
5. It is the instrumentality of the instrumental cause (of inferential knowledge).
6. It is identity (*tādātmya*) (between *h* and *s*).
7. It is the being-qualified of what is qualified.
8. It is the counterpositive of the absence which pervades the absence of the pervaded.
9. It is complete coexistence (*sahabhāva*) of the *h* and *s*.
10. It is an unconditioned (*anaupādhika*) relation.
11. It is the state of being the common locus for what is not the counterpositive of the absolute absence which exists in the same locus with what is held to be the *h*.

Among these, the first definition is shown by Maṇikaṇṭha to be inadmissible on the ground that a *specific* relation is required to link the *h* and *s*.[10]

The proof for the second definition lies in the absolute absence of the *s* having coexistence with the absence of *h*. This does not apply to only-positive inference and so is rejected,

The third definition is to be proved through the absolute absence of the *s*. Thus it too does not apply to the only-positive inference.[11]

The word "natural," which occurs in the fourth definition, does not have a precise sense and so this definition is vitiated by the defect of overextension and underextension.[12]

The fifth definition deserves to be rejected as it does not apply to cases involving the causal relation and is applicable to cases which do not involve the causal relation.

The sixth one, which is held by the Buddhists, cannot be maintained, as its admission would lead to the breakdown of the causal relation.

The seventh definition is applicable to the relation between fire and smoke (as well as smoke and fire) and so is not acceptable.

The eighth definition is rejected by Maṇikaṇṭha since it does not apply to only-positive inference.

Since the ninth definition does not cover all the cases of *h* and *s*, the word "complete" does not serve any purpose; so this definition is rejected.

Maṇikaṇṭha rejects the tenth definition, as the knowledge of the *upādhi* is to be proved through that of invariable concomitance and invariable concomitance is to be known through knowing the absence of *upādhi*, thus leading to mutual dependence.[13]

The last definition does not apply to contact and other things, and so is rejected.

Finally, Maṇikaṇṭha makes separate mention of the first definition again, giving it the interpretation of the Bhūṣaṇakāra.[14]

7. (E55-61) Maṇikaṇṭha now offers his definition of pervasion. The *h* is said to be pervaded by the *s* when it has the same locus along with that which is not the counterpositive of the absolute absence which shares the same locus with it, and where this absolute absence must be different from the absolute absence which shares the same locus with the former's counterpositive. This last clause is introduced in order to make clear that the *h* must not share the same locus with its own absolute absence.

8. (E62-70) Regarding the way in which pervasion becomes ascertained, the notion of repeated observation (*bhūyodarśana*) was used by earlier writers. This word, however, does not have a precise sense, as it could be taken to mean repeated (i.e., many) observations, or observations of many cases. Thus repeated observations will not guarantee that doubts about pervasion will get removed. Maṇikaṇṭha, therefore, shows that pervasion becomes known through perception and verbal testimony aided by reasoning. In order to admit

pervasion in all appropriate cases Maṇikaṇṭha shows that inferential cognition must be recognized to arise between the *h* and *s* which possess a feature through the possession of which pervasion can be ascertained to exist between them. Strict adherence to this principle will help in drawing correct inferences. The author notes and rejects the view that all the particular cases of *h* and *s* which cannot be individually inspected can be brought together through an extraordinary sense-relation which has for its object the universal under which the particulars fall.[15]

9. *Upādhi.* (E70-89) Maṇikaṇṭha states eight definitions of *upādhi* and examines them. They are :

1. An *upādhi* is that which does not pervade the *h* while pervading the *s*.
2. It is that which does not pervade *h*, but equally (with the *h*) pervades the *s*.
3. It does not pervade *h*, while pervading the *s* which is limited by the property of the *p*.
4. It pervades the *s* but does not exist in the *p*.
5. It does not pervade *h*, but pervades *s* which is obtained (*paryavasita*) (through the characteristic of the *p*).
6. It exists in the same locus as *s* and qualifies the *h*.
7. It does not pervade *h*, but pervades the relation between *h* and *s*.
8. It does not pervade *h*, but pervades *s* when *s* is limited by (*avacchinna*) *h*.

Maṇikaṇṭha rejects the first definition on the ground that it does not apply to the condition which pervades the *s* that is limited by the *h*. Also, the *upādhi* might apply to cases unrelated to the *p* under this definition.

The second definition[16] is rejected on the ground that an *upādhi* can as well apply to cases which have uneven pervasion (*viṣamavyāpti*), and need not be restricted to cases having equipervasion.[17]

The third definition does not apply to the well-known case of contact between wet fuel and fire. Thus it is rejected.[18]

The fourth definition also does not apply to all cases; also it admits some undesirable ones.

The fifth definition[19] is rejected since what is undesirable would become an *upādhi*.

The sixth definition is also rejected, since the *h* is connected with the *s* and is qualified by a thing which is likely to become an *upādhi*.

The seventh definition is also not acceptable, since what is other than the relation between the *h* and *s* is to be established on the basis

of the difference from the *upādhi*, and so such a definition is not relevant.

The last definition is also rejected on grounds already rehearsed.[20]

10. (E89-96) Now the author defines *upādhi* as a characteristic which is other than the property invoked in only-positive inference, that is, which does not have concomitance of this only-positive sort. In other words, the *upādhi* is that characteristic which does not prove the *s* when it is removed from the *p*.[21]

11. (E96-100) *Upādhis* are of two sorts: certain and doubtful. Contact with wet fuel is an example of the former. Possession of a color which is the result of internal cooking is the illustration for the latter, in the judgment "this is earth as it has smell."

12. (E100-08) An *upādhi* marks a flaw in the inferential judgment. Its defectiveness is proved by showing that on account of it pervasion is not present and thus there is deviation (*vyabhicāra*) preventing the grasping of pervasion.

Like the fallacious reasons, there are fallacies of *upādhi*. Maṇikaṇṭha enumerates nine such fallacies and illustrates them. At the end, the author mentions the *Nayacintāmaṇi* as his other work, where he gives an elaborate treatment of this topic.

13. (E109-16) *Pakṣa*-ness. The characteristic property of a *pakṣa* (*pakṣatā*) cannot be defined as: becoming the object of doubt possessing the thing to be proved. For the doubt which arises in the form "The hill may or may not have fire" would then be referred to as a *pakṣa*. Inferential judgments originate from a collection of causal factors aided by either the knowledge of invariable concomitance or knowledge of the thing which one desires to make the subject. As a consequence doubt may arise, but so may the desire to know, or fitness in the form of the absence of the means of valid cognition to achieve that end. Whatever be the materials which produce inferential judgments, then, knowledge of *pakṣatā* is not actually useful. An inference does not rise from the judgment "this *pakṣa* has smoke," but rather from "this hill has smoke." The word *pakṣa* is therefore used with reference to the place which is known in its characteristic form, but not as something to be proved. The characteristic of the *pakṣa* is simply a particular relation, the relation, of the *hetu's* being located there.

14. (E116-29) Concerning *parāmarśa* ("subsumptive reflection"). *Parāmarśa* is defined as knowledge of the characteristic of the *pakṣa* which (knowledge) is qualified by knowledge of pervasion. These two judgments cannot be treated as independent causes for inferential judgments. If they could be so treated, then inference would have to be admitted to result from a judgment of doubt, e.g., "The smoke

is present in the subject, but it may not be pervaded by fire." Maṇikaṇṭha makes it clear that the object, the knowledge of whose being the attribute gives rise to the knowledge of the qualified, is then the object of that knowledge. Hence the inferential judgment of fire has smoke for its object, since it is a judgment that is produced by knowledge of smoke which becomes the attribute of fire. The mere form of smoke could not give rise to this judgment, for it is presented only as the attribute of fire. Therefore knowledge of *h* has a twofold operation as the cause of inferential judgments: one is of a general nature, in which its role is that of the knowledge of the attribute, and the other is of a special kind in which it functions as knowledge of the *h*.

The *hetu* is of three kinds: only-positive, only-negative, and positive-negative. These are defined respectively:

(1) Only-positive *hetu* is one which is not the counterpositive of an absolute absence.

(2) Only-negative *hetu* is the characteristic which pervades the feature which determines *pakṣatā*, which does not share the same locus with the absolute absence of the features which determines *pakṣatā*, and which pervades the *sādhya*.

(3) Positive-negative *hetu* is the characteristic which pervades the feature which determines *pakṣatā*, is absent from the *vipakṣa* which (*vipakṣa*) occurs in that place which has the *sādhya* and has absolute absence of the property which limits the *pakṣatā*.

(15) (133) Argument (*nyāya*). An argument is a statement which produces a verbal cognition that is helpful for the consideration of the *hetu* which is the immediate cause of the inferential judgment.

(16) (E135-44) Members (*avayava*). The author refers to divergent views on the number of members. Some schools of thought, like Buddhism, maintain that there are only two members, example and application, while others, like the Mīmāṃsakas, maintain three members: either hypothesis, reason, and example, or example, application, and conclusion. The early school of the Jains recognized the Nyāya five and added five more: doubt, desire to know, attaining what is attainable, purpose, and rejection of doubt. Maṇikaṇṭha remarks that the judgment which leads directly to inferential knowledge must be included. Since all five members are needed for this, but no more, the Nyāya view is justified.

(17) (E145-47) Controversy (*kathā*). Three definitions of controversy are noted and rejected.

(1) Controversy is a passage or sentence which puts forward arguments for establishing a position or for rejecting it.

(2) Controversy is a statement containing ways of losing the argument.

(3) Controversy is a statement uttered by one who points out mistakes, at the same time being uttered by one who seeks to establish a position which is other than reiteration.

The first position cannot be maintained, since if the controversy takes the form of a discussion, then when one of the participants establishes his position, the other may not meet this position by remaining still.

The second position cannot be held, for a way of losing an argument is itself a statement which is mistaken in one way or another, and we could not understand it or the mistake it makes without knowing in advance what the controversy is about.

The third position is not viable for the same reason that the first is not. Furthermore, it fails to cover cases of debate where one and the same person establishes a point and then refutes it in order to win the contest.

Maṇikaṇṭha then defines controversy as the statement which is produced by knowledge of the way in which the fallacious reasons, etc., uttered by the opponent are to be set aside.

18. (E147-54) Discussion (*vāda*). A discussion is intended to determine the truth. It is not undertaken to attain victory in a debate. Thus only some of the ways of losing an argument are relevant in a discussion, and some of the others should not be raised. The ones which are relevant are: *virodha*, *aprāptakāla*, *nyūna*, *adhika*, *punarukta*, *ananubhāṣaṇa*, *apasiddhānta*, *niranuyojyānuyoga*, and *hetvābhāsa*.

19. (E154-57) Sophistry (*jalpa*). This is the proper title for an argument held for the purpose of gaining victory. The steps in a debate are detailed: someone states his position after the issue has been identified; then he establishes it by argument. The mediator corroborates this position. The opponent then points out the defects in the position of the first participant, and gives his arguments. The first participant then refutes the stand taken by the opponent.

While attempting to win such a debate each party will try to identify ways of losing an argument in the position of the opponent. This is undertaken by both parties with mutual consent, stemming from their pride in understanding the system of the other. The view of Śrīharṣa[22] that sophistry cannot be a kind of controversy, since it may consist of different types of argument, cannot be maintained, for by parity of reasoning there would be more than one kind of controversy merely because a debate includes one party's establishing, and another's refuting, a position.

20. (E157-58) Cavil (*vitaṇḍā*) is a controversy on the part of a person who desires to achieve victory, i.e. to enhance his reputation.

21. (E158-67) The next topic is that of fallacies of the *hetu*. Four definitions are stated at the outset:

(1) A fallacious *hetu* is a judgment whose content is the counterpositive of an absence, which absence is the cause of inferential judgment.

(2) A fallacious *hetu* is a judgment whose content is not the cause of inferential judgment.

(3) A fallacious *hetu* is that which lacks *pakṣatā* qualified by pervasion.

(4) A fallacious *hetu* is that which lacks a *pakṣatā* known to be qualified by pervasion.

Maṇikaṇṭha rejects these definitions one by one.

(1) The first definition fails to cover a compound inference, such as, e.g., when one infers from the fact that a pot and a cloth have qualities the conclusion that the pot is a substance and that the cloth is noneternal. Here the pot surely is properly proved to be a substance, but on the definition given the *hetu* turns out to be fallacious and the inference fails.

(2) The second definition also fails to cover the above example.

(3) If the third definition were right, one could not prove that something is noneternal on the ground that it is a product, providing that it is also audible (say), since it (the thing which is the *hetu*) thus lacks *pakṣatā* qualified by pervasion.

(4) The same case vitiates the fourth definition.

The author now defines the fallacious *hetu* in the following way: In each inferential judgment the third consideration of the *hetu* (i.e. in the fourth member, *parāmarśa*) is required to be experienced as valid. This *parāmarśa* is produced by the *p* as qualified by *h* having invariable concomitance with *s*. The absence of this state of affairs is fallacious *hetu*.

There are five fallacies of the *hetu*: *vyabhicāra*, *viruddha*, *prakaraṇasama*, *asiddha*, and *bādha*. In each one there is absence of valid experience of the third consideration.

Some say that since invariable concomitance is absent in all fallacious *hetus*, *asiddha* is the only fallacy. Others say *bādha* should be included under *vyabhicāra*. Vallabha holds that *anadhyavasita* is a separate fallacy.[23] Maṇikaṇṭha refutes these views, showing that all five of the accepted fallacies are distinct and ineliminable, and that they jointly exhaust all fallacies.

22. (E175-80) Concerning the *satpratipakṣa* (= *prakaraṇasama*) fallacy, Maṇikaṇṭha illustrates it with the example of two inferences (a) "sound is noneternal, being produced," (b) "sound is eternal, being audible." He denies that the two *hetus* can be related as a thing and its contradictory and be equally powerful, which is the way some explain this fallacy.[24]

23. (E188-92) Quibble (*chala*). Quibbling consists in identifying a supposed defect in the opponent's argument by construing what he says in a way he does not intend. The three kinds of quibble (cf. NS I. 2.11) are illustrated following the usual practice. Maṇikaṇṭha says that each of the three kinds of quibble are of five subvarieties since they may apply to each of the five members of the argument.[25]

24. (E192-220) Futile rejoinder (*jāti*). Maṇikaṇṭha notes four definitions:

(1) A futile rejoinder is a reply which is incapable of repudiating the charge of defect in one's argument,

(2) Or it is a reply which is detrimental to itself,

(3) Or, it arouses defects on the basis of the instruments of valid knowledge without mentioning the deficiency in the members of the argument,

(4) Or, it is a reply which establishes that one's argument is incapable of proving the conclusion, since it is not pervaded by that which does not prove anything.

The first definition does not apply to the following example: *A* argues "sound is noneternal, being a product." *B* rejoins: "If sound is not eternal, being a product, on the strength of similarity to a jar, then why is it not eternal, being all-pervading, on the strength of similarity to *ākāśa* ?" Yet this is a futile rejoinder.

The second definition is not acceptable, as it is applicable also to an inference which has no basis but which takes the opponent's position. For instance, *A* says "the knowledge of silver has a basis, being a judgment, like the judgment of a jar." *B* says "The knowledge of silver is without basis, being a knowable thing, like jar." Here *A*'s statement is thus detrimental to itself (since it opens *A* up to *B*'s reply) yet this is not a case of futile rejoinder butrat her of *satpratipakṣa* (cf. above, section 22).

The third definition cannot be admitted, since either it makes an attempt to point out a defect in a member of an argument itself defective, or else it overextends to include such things, as, e.g., the first of the ways of losing an argument (the one called *adhika*).

The fourth definition cannot be maintained, since if what

cannot prove is proved through being pervaded by what cannot prove, then that very utterance becomes defective and thus a futile rejoinder.

Maṇikaṇṭha rejects all these definitions and offers his own. A futile rejoinder is a reply that is employed with the intention of proving what cannot prove, basing its argument on invariable concomitance.

The twenty-four kinds of futile rejoinder are reviewed. Discussing the kind called *sādharmyasama*, Maṇikaṇṭha illustrates this as follows: *A* says "sound is not eternal, being a product, like a jar". *B* gives a futile rejoinder: "If, being a product, sound is noneternal on account of its similarity to jar, then it may as well be eternal since it is a knowable, on the basis of its similarity to *ākāśa*." Here no significance is attached to pervasion between *h* and *s*, but the rejoinder is made instead on the basis of similarity between the example (*sp*) and the *hetu*. Since the rejoinder is made on the ground that sound is a knowable, and since all knowables are not eternal, it is defective. The root cause in any rejoinder is its specification of a balancing argument. But a rejoinder is made without ascertaining whether all the parts (*aṅga*) are present,[26] and a futile rejoinder occurs when a rejoinder is vitiated by the lack of a part which is expected. It also occurs when a part which is not required is appealed to, and that is the case here, for the similarity between *sp* and *h* is not a required element in a valid argument.

Udayana's views[27] are cited frequently in discussing the various kinds of futile rejoinder.[28] Maṇikaṇṭha does not discuss every one of the varieties of each kind of futile rejoinder that Udayana distinguishes, however.[29]

25. (E221-45) Ways of losing an argument (*nigrahasthāna*). Maṇikaṇṭha defines "losing" as the absence of correct knowledge about what is under discussion.[30]

The discussion of some of the twenty-two ways are interesting.

Pratijñāvirodha consists in stating, in the same sentence, what cannot exist together. For instance, to say that an atom has parts and it has motion because of its possession of the smallest size is to commit this fault. Another illustration is "The jar is the counterpositive of (its) absence, as it exists for all time."

Arthāntara is something which is not useful in the context, that is, which does not form part of the passage. *Siddhasādhana* cannot be brought under this heading, for it gets included under fallacies of the *hetu*. Jayanta[31] offers a fine illustration of this. "Sound is eternal, as it is partless. This statement is made by Pāṇini.

Pāṇini got the science of grammar from Maheśvara. Maheśvara taught grammar to Pāṇini and performed the *tāṇḍava* dance." Then that dance is described....These remarks illustrate *arthāntara*; they do not mean anything directly.

Avijñātārtha consists in the use of words which are not known to one of the disputants. This includes the intention to delude others through the use of puns. For instance, "the white one runs." This makes no sense. The speaker alone knows that the dog (*śvā*) runs from here (*itaḥ*). Again, concepts such as *pañcaskandha*, *cātvāla* (a deep hole for placing the sacred fire), etc., are familiar respectively only to Buddhists, Mīmāṃsakas, and others.[32] Gautama notes that this is a point of defeat only when what is uttered is not made out even after it is offered a third time. Maṇikaṇṭha states that this restriction does not serve any purpose. The author of the *Nyāyabhūṣaṇa*[33] justifies the three-times requirement as made in order to get the permission of the assembly to point out the point of defeat. According to Trilocana, the statement can be made for a fourth time also.[34] Some writers hold that it must be the exact statement which was originally made, while others allow that the statement may be modified and repeated.[35]

Apārthaka consists in making a statement which does not have grammatical connection (*anvaya*), expectancy (*ākāṃkṣā*), or proximity (*saṃnidhi*) with a sense that is well-known and admitted by both parties. This is illustrated by "He goes with milk by the horse having eaten Devadatta" (*gacchati payasāśvena bhuktvā Devadattaḥ*). According to the author of the *Nyāyabhūṣaṇa*[36] the meaning in such passages can be gotten by taking it in the reverse way, and so like ungrammaticality (*apaśabda*) this point of defeat should be raised only in discussions.

Apratibhā is exposing one's own doubt, as illustrated by one's saying "We are in doubt concerning this matter." Maṇikaṇṭha does not admit Gautama's definition of this point of defeat. Gautama's understanding is that the discussant does not understand the reply on the ground that he is adjusting his hair, looking at the sky, and other such activities. Such activities imply his tacit assent (*ananubhāṣaṇa*). The author of the *Nyāyabhūṣaṇa*[37] held that observing silence is itself *apratibhā*.

Vikṣepa consists in giving up a dispute due to the opponent's indulgence in various other activities. For instance, the disputant may say "my daughter's marriage is to be celebrated. When it is over I shall be here on another day and take part in this debate."

If the opponent goes out to spit or perform some other such urgent act, this point of defeat shall not be appealed to.

Paryanuyojyopekṣaṇa consists in not pointing out a point of defeat in the opponent's statement when it is fit to be exposed. The participants shall not point out this failure; that is the mediator's task. Vācaspati Miśra[38] offers as an option that the assembly or judge may do it. Jayanta[39] and Viśvarūpa hold that it may be done either by the disputants or by the assembly, or at the instance of the judge. Varadarāja[40] remarks that there is no difference of opinion on this issue between Trilocana and Vācaspati.

Niranuyojyānuyoga consists in pointing out a point of defeat because of delusion. This is of two kinds: one, showing a point of defeat where it is not present; two, showing a particular point of defeat where some other point of defeat needs to be pointed out. Instances are of many kinds, since such a delusion may arise due to the fallacies of quibbling and futile rejoinder.

Apasiddhānta is admission of the contradictions among the schools of thought that are admitted as favorable for discussion. The Buddhists do not admit that this is a point of defeat, since according to them discussions do not always proceed on the basis of the schools of thought. Maṇikaṇṭha rejects their view, saying that disputation should proceed only by admitting some subject matter which one of the disputants affirms. According to Udayana,[41] the *śāstra* will have to form the basis for disputation.

Maṇikaṇṭha does not treat *hetvantara* as an independent point of defeat. It is treated as identical with *pratijñāntara*. However, Udayana and the commentator maintain that they are different from each other. Bhāsarvajña ignores *avijñātārtha* and *apārthaka*, while Jayanta does not deal with *paryanuyojyopekṣaṇa*.

Gautama included fallacies of the *hetu* among the ways of losing an argument. The word "ca" in "hetvābhāsaśca" is interpreted by Udayana[42] as meaning that like the *h* the examples, *tarka* and the utterance may also become fallacious and turn out to be points of defeat. Maṇikaṇṭha rejects this and says that when these become fallacious the *h* too will be fallacious. Hence the word "ca" must be taken to include errors which arise due to other *pramāṇas*. Udayana[43] discusses the nature of a number of fallacies and brings them under the five fallacies admitted in the Nyāya system.

25. (E245-48) The last section takes up the *mahāvidyā* argument form. *Mahāvidyā* is the name given to an inferential argument which is absolutely free from any kind of fallacy, since the argument is an only-positive one and the requirements of validity, including

pervasion, are met. Here is an illustration: "This hill has a feature which is other than the feature which is different from possession of fire, being a knowable, like kitchen or lake." If any objection is made to this, the *hetu* must be shown to be flawless. This may be done as follows: "This hill has a feature which exists there, where fire is present, and does not exist in places other than this hill, being a knowable."

Maṇikaṇṭha does not discuss any ways of refuting this type of argument.[44]

47. ŚAŚADHARA

According to D. C. Bhattacharya this writer is another Maithili, who flourished around 1300. Four titles are attributed to him: *Nyāyasiddhāntadīpa*, *Nyāyamīmāṃsāprakaraṇa*, *Nyāyanaya*, and *Śaśadhara-mālā*. Gopinath Kaviraj[2] thinks that the second and third of these are identical. Kaviraj reports that one tradition attributes the "Lion" definition discussed in the *Tattvacintāmaṇi* to Śaśadhara.

Professor V. Varadachari[3] gives some information concerning Śaśadhara's views on the invocation (*maṅgala*). Śaśadhara agrees with Gaṅgeśa and Śrīdhara, as against the older view maintained in *Vyomavatī* and *Kiraṇāvali*, for example, that an invocation is a kind of judgment residing in the self; obstacle destruction too resides in the self and thus can be an effect, but completion of the work resides in *ākāśa*, since it consists in the destruction of the final letter in the last expression constituting the work.

NYĀYASIDDHĀNTADĪPA[4]

The work has been edited twice. We give here a summary of the topics treated in the section of the text provided in the *Pandit* edition (B3269).

1. (E1-40) Theory of the invocation (*maṅgalavāda*).

2. (E40-78) Darkness is shown not to be an additional category.

3. (E79-102) Theory of causality (*kāraṇatāvāda*). Śaśadhara gives and refutes several definitions of causality. His own definition is that causality is merely the property of occurring prior to and in a regular relation to the effect (*kāryaniyatapūrvavṛttijātīyatvaṃ eva kāraṇatvam*).

4. (E103-18) Theory of word meaning (*padaśaktivāda*). Defends Gautama's theory, that the word means three things, viz.,

universal property, individual, and *ākṛti*, against Kumārila's theory that words only mean properties.

5. (E120-50) Shows that meaning (*śakti*) is not a separate category (*sahajaśaktivāda*).

6. (E151-68) *Ādheyaśaktivāda.* Refutation of *ādheyaśakti* as an additional category.

7. (E169-84) Shows that the internal organ has small size (*mano'ṇutvavāda*).

8. (E185-200) Verbal testimony is a distinct instrument of valid knowledge (*śabdaprāmāṇyavāda*).

9. (E201-14) *Jñānakarmasamuccayavāda.* Some hold the view that knowledge and action are of equal importance in producing liberation. Śaśadhara's view is that their combination does lead to liberation, but that they are not equal in importance, since right actions depend on correct knowledge.

10. (E214-43) Theory of liberation (*muktivāda*). Concerns proper definition of liberation.

11. (E244-51) *Siddhārthaprāmāṇyavāda.* Judgments about objects already proved are yet valid.

12. (E252-58) *Anvayaśaktiniṣedhavāda.* Still another kind of *śakti* which is not a new category.

13. (E260-75) Refutation of the perceptibility of air (*vāyu-pratyakṣatānirāsavāda*).

14. (E276-97) Defence of nonpropositional judgments (*nirvikalpakavāda*).

15. (E299-319) *Suvarṇataijasavāda.* About gold being fire.

16. (E320-46) *Yogarūḍhivāda.* Concerning the theory of secondary meanings.

17. (E350-79) Theory of subsumptive reflection (*liṅgaparāmarśavāda*).

18. (E379-435) *Vyāptivāda.* Śaśadhara offers 17 definitions of pervasion which he discusses: pervasion is

(1) being without *upādhi* (*anaupādhikatvam*);
(2) a natural relation (*svābhāvikatvam*);
(3) being nonwandering (*avyabhicaritatvam*);
(4) being fully related (*kārtsnyena sambandho*);
(5) (probably a misprint here)
(6) *viśiṣṭe vaiśiṣṭyam*;
(7) identity (*tādātmyam*);
(8) cause-effect-relationship (*kāryakāraṇabhāvo*);
(9) necessary relationship (*avinābhāvo*);
(10) *nimittanaimittikatvam*;

(11) a certain mutual absence (*anyonyābhāvaviśeṣa*);
(12) *yāvadsādhyavyāpakavyāpyatvam*;
(13) pervading the *s* (*sādhyavyāpyatvam*);
(14) having the same locus as the *s*, which is the counterpositive of an absolute absence which is pervaded by having the same locus as the absolute absence of the *h* (*sādhanātyantābhāvasāmānādhikaraṇyavyāpyātyantābhāvapratiyogisādhyasāmānādhikaraṇyam*);
(15) *sādhanābhāvavyāpakābhāvapratiyogisādhyasāmānādhikaraṇyam*;
(16) *sādhanābhāvavyāpakābhāvapratiyogitvam*;
(17) just being related (*sambandhamātram*).

19. (E436-506) Theory of injunctions (*vidhivāda*).
20. (E507-21) Theory of *apūrva* (*apūrvavāda*).
21. (E522-59) The Nyāya theory of error (*anyathākhyātivāda*).
22. (E560-72) Theory of presumption (*arthāpattivāda*).
23. (E574-600) Theory of absence (*abhāvavāda*).

48. TARAṆI MIŚRA

This is the "Ratnakośācārya" referred to frequently in later literature. The name of the author of the *Ratnakośa* is given as Taraṇi Miśra by Rucidatta and by Vācaspati Miśra II. Vardhamāna gives six views of this author on the ways of losing an argument, and in another place four more. Śaṃkara Miśra says that the Ratnakośācārya admits a fourth kind of controversy.[1]

D. C. Bhattacharya suggests that Taraṇi Miśra came after Maṇikaṇṭha and is more or less contemporary with Gaṅgeśa. We have seen above, however, that Maṇikaṇṭha mentions the views of the Ratnakośācārya; thus we may assume they were near contemporaries.

A FEW UNDATABLE WRITERS

Finally, there are a few names and works which seem to belong to our period but which are pretty well undatable within several centuries.

D. C. Bhattacharya[1] mentions three writers who flourished "before Gaṅgeśa". One of these is JAGADGURU, who according to Pragalbha had views on, and presumably commented on, the *Nyāyakusumāñjali*. He may have commented on *Kiraṇāvali* also, as Pak-

ṣadhara's *Dravyaviveka* refers to a *Prakāśa*. Another author is RAVĪŚVARA, about whom we know nothing. The NYĀYABHĀSKARAKĀRA is known only as the author of a work by that name.

VIṢṆUMIŚRA is mentioned by Anantlal Thakur[2] as a writer about whom we know nothing. Thakur conjectures this may be the same person as Varadaviṣṇumiśra, who is quoted by Vedānta Deśika. Two other authors, mention of whom has been discovered by Thakur[3], are VIDYĀDHARAMIŚRA and ŚRĪKARA. All three of these are Vaiśeṣikas.

There has been a lot of confusion about a *Bharadvājavṛtti*, supposedly an old commentary on the Vaiśeṣikasūtras. Thakur[4] suggests that it might be an old commentary quoted by Candrānanda and Śaṃkara Miśra under the title "Vṛtti." Hakuju Ui[5] investigated this a bit. He reports that the late work entitled *Bharadvājavṛttibhāṣya*, written by Gaṅgādhara Kaviratna Kavirāja, is not on this *Vṛtti*, since the passages quoted by Śaṃkara Miśra do not agree with those in this work. Faddegon[6] also examined the relevant materials and concluded that the work by Gaṅgādhara Kaviratna Kavirāja is an eclectic mongrel of Sāṃkhya-Yoga ideas which "repel the European reader," that it is impossible to distinguish the commentary from the *Vṛtti* it is a *Bhāṣya* on, that it seems to be more or less a direct commentary on the *sūtras* themselves in a recension which "is of little authenticity and trustworthiness." D. N. Shastri[7] concludes that the "Bharadvājavṛtti is sheer myth."

Finally, we come to CANDRĀṆANDA. His *Vṛtti* on the *Vaiśeṣikasūtras* is now available, but estimates of his date differ widely. Sandesara[8] suggests the 7th century, but Hattori thinks it is much later, possibly after our period altogether.

NOTES

CHAPTER ONE

References given with "B" followed by a number are to items in Karl H. Potter, *Bibliography of Indian Philosophies* (Delhi : Motilal Banarsidass, 1970)

1. For an explanation of these classifications see Nelson Goodman, *The Structure of Appearance* (Cambridge : Harvard University Press, 1951), especially Chapters 2-4.

2. For a list of the authors and works surveyed in this volume see pp. 9-12.

3. With questionable justice. See p. 12.

4. Erich Frauwallner, B1049.

5. The term "Naiyāyika" is the normal way in which an exponent of the Nyāya system is referred to. For convenience, and since in this volume the Nyāya and Vaiśeṣika doctrines are treated together as constituting one system of beliefs, I shall frequently use the term "Naiyāyika" to refer to a member of either school.

6. By Daniel H. H. Ingalls, B3417, and Karl H. Potter, B3719.

7. See Anantlal Thakur, B1106.

8. D. Gurumurti in the Introduction to B2980.

9. Umesh Mishra, B6026, pp. 38-50, lists the following 19 points of difference : (1) Nyāya's emphasis on epistemology, Vaiśeṣika on ontology; (2) Nyāya has 4 *pramāṇas*, Vaiśeṣika, 2; (3) Nyāya accepts 5 kinds of perception, Vaiśeṣika only 1; (4) according to Nyāya inherence is perceptible, but not according to Vaiśeṣika; (5) Nyāya is *piṭharapākavāda*, Vaiśeṣika *pīlupākavāda*; (6) Nyāya believes that one motion lasts 3 or 4 moments, Vaiśeṣika that it lasts 7 moments; (7) Nyāya admits 5 fallacies of the *hetu*, Vaiśeṣika, 3; (8) Nyāya believes that in process there are several *vegas* produced in turn; Vaiśeṣika says there is only one; (9) Nyāya admits *sakhaṇḍopādhis*, Vaiśeṣika includes them under other categories (this applies only to the later schools); (10) Vaiśeṣika admits disjunction produced by disjunction, Nyāya does not; (11) Vaiśeṣika holds that 2 and higher numbers are produced by an *apekṣābuddhi*, Nyāya says that the *apekṣābuddhi* only manifests, does not produce those numbers; (12) Nyāya accepts contact between all-pervading substances, Vaiśeṣika does not; (13) the schools differ about the state of the self in liberation; (14) Nyāya uses the term *artha* to cover the 5 sense-qualities, while Vaiśeṣika uses it to cover all substances, qualities, and motions; (15) Vaiśeṣika classifies inferences in a fivefold manner (by effect, by cause, by contact, by contradiction, and by inherence), Nyāya thinks this classification useless; (16) Nyāya says tenderness is separate from hardness and both inhere in contact inhering only in earth, while Vaiśeṣika says they inhere in touch, not contact; (17) Naiyāyikas are Śaivas, Vaiśeṣikas, Pāśupatas; (18) there is reputed to be a difference of viewpoint about organisms, although Misra thinks there is not; (19) Nyāya says dreams may be true or false, but Vaiśeṣika says they are always false.

10. Frauwallner, B1049.

11. A. M. Frenkian, B8804.

12. Frenkian, B8804, p. 126.

CHAPTER TWO

1. Barend Faddegon, B2603, p. 12.
2. Gopinath Kaviraj, B6004, p. 41.
3. Daniel H. H. Ingalls, B6100, p. 228.
4. Daya Krishna, "Three Conceptions of Indian Philosophy," *Philosophy East and West* 15 (1965), 50.
5. G. R. F. Oberhammer, B801A.
6. Paul Hacker, B8877.
7. Oberhammer, B801A.
8. Dharmendra Nath Sastri, B 6152, pp. 87-91.
9. Hermann Jacobi, "A contribution towards the early history of Indian philosophy," *Indian Antiquary* (1918) 107-08.
10. Satischandra Vidyabhusana, Introduction to revised edition of B240.
11. George Chemparathy, "The testimony of the *Yuktidīpikā* concerning the *Īśvara* doctrine of the Pāśupatas and Vaiśeṣikas," *Wiener Zeitschrift fur die Kunde Sud— und Ostasiens*, IX, (Vienna, 1965), 130.
12 Daniel H. H. Ingalls, "Cynics and Pāsupatas: The Seeking of Dishonor," *Harvard Theological Review* 55.4 (1962) 281-98.
13. Gopinath Kaviraj, B6007, pp. 613-14.
14. Cf. D. R. Bhandarkar's Introduction to B3076, pp. iii-x.
15. Cf. Chemparathy, *op. cit.*, pp. 131-32.
16. Cf., e.g., Ingalls, B6100.
17. Chemparathy, *op. cit.*, p. 131.
18. Daya Krishna, *op. cit.*, pp. 48-49.
19. A useful work of this kind, one among many, is Satischandra Chatterjee's *The Fundamentals of Hinduism* (Calcutta : University of Calcutta Press, 1950, 1960).
20. Śrīharṣa's Naiṣadhacarita 17.74.
21. See summary of *Nyāyabhāṣya* I.1.22, p. 241. It is not clear who the "some" are who "argue thus" about liberation involving pleasure: are they early Vedāntins ? R. Shamasastry thinks they are "early Śaiva ekadeśins," i.e., he implies that there were those long before Bhāsarvajña among the Naiyāyikas who took this view. Cf. R. Shamasastry, B7992, pp. 355-56.
22. This paragraph is based on Umesh Mishra, B6026, pp. 379-83.
23. By Ānandavardhana. Cf. Anantalal Thakur, B2512.
24. Ingalls, B6100, p. 228.
25. These are slight modifications of Ganganatha Jha's translations of the passages.
26. "Entrenched" in the sense explicated by Nelson Goodman in *Fact, Fiction and Forecast* (Indianapolis : Bobbs-Merrill 2nd edn., 1965), pp.94ff.
27. A.K.R. Chaudhuri, B6074.

CHAPTER THREE

1. For the general conception of philosophical method sketched in the preceding paragraphs I follow for the most part the exposition of Nelson Goodman in *The Structure of Appearance, op. cit.*, especially Chapters 1-4.
2. T. R. V. Murti, B7909, p. 141.
3. See Karl H. Potter, "Is Nyāya Logic Extensional or Intensional ?," *Journal of the American Oriental Society*, 88 (1969), 711-17.

4. Madeleine Biardeau, B8792, pp. 371-84.

5. Cf. Willard Van Orman Quine, "Two Dogmas of Empiricism," in *From a Logical Point of View* (Cambridge : Harvard University Press, 2nd rev. edn., 1961), pp. 20-46.

CHAPTER FOUR

1. For a development of this line of argument concerning the interpretation of Nyāya, see Karl H. Potter, "Astitva Jñeyatva Abhidheyatva," in *Festschrift für Erich Frauwallner, Wiener Zeitschrift fur die Kunde Sud— und Ostasiens*, XII-XIII (Vienna 1968), 275-80.

2. The importance of this point is rightly stressed by D. N. Shastri, B6152. See his index under *dharmadharmibheda*.

3. The notion of a "self-linking connector" plays a large part in Navya-Nyāya. See Ingalls, B3417, pp. 75-76, passim.

4. It is rejected explicitly by Raghunātha Śiromaṇi. Cf. Karl H. Potter, B3719, p. 87.

5. B. Faddegon, B2603, pp. 141-46.

6. Ingalls, B3417, pp. 67-71; also B. K. Matilal, *The Navya-Nyāya Doctrine of Negation* (Harvard Oriental Series, 46) (1968), 45-51.

7. Cf. D. N. Sastri, B6152, p. 128; also Sadananda Bhaduri, B6048, p. 293.

8. Cf. B. K. Matilal, B6127.

9. There are minor ones, e.g., that given in *Nyāyakusumāñjali* sections 74-90 of Book One, pp. 564-565.

10. Th. Stcherbatsky, B1174, Vol. I, 247, passim.

11. Stcherbatsky, B1174, Vol. I, 256; Vol. II, 74ff.

12. Kalidas Bhattacharya, B8567, p. 166.

13. Kalidas Bhattacharya, B8567, pp. 167-71, discusses this relevance at length. He draws some devastating conclusions.

CHAPTER FIVE

1. The methodology of such a constructive enterprise is set forth in Nelson Goodman, *The Structure of Appearance*, *op. cit.*

2. The relation called the "resider-residence-relation" on p. 50 includes this relation, but also includes other relations which will be defined below, such as inherence and contact. It is important for the definitions to follow, however, that "L" as interpreted for our purposes cover only those locus-located relations which are self-linking (*svarūpasambandha*).

3. Cf. p. 51.

4. Furthermore, it is not the product of the substances which must satisfy the condition, but the product of the places they occupy. Even so, this definition probably fails; see the next footnote.

5. I am quite aware that the account just given is difficult to square with the Vaiśeṣika theory that atoms are partless and of minimal size. The definitions offered in this section are not claimed to be accurate; they are intended to illustrate problems of formalizing Vaiśeṣika theory. More satisfactory formalizations will, I am sure, appear elsewhere soon.

6. The symbol "[ ]" indicates that what is in the brackets is an ordered pair. Contact, as here defined, is a symmetrical relation. Later, in Navya-Nyāya, contact is analyzed into two asymmetrical relations for at least some cases.

7. See pp. 414-415.
8. Cf. Karl H. Potter, B3719, p. 87.
9. D. N. Sastri, B6152, pp. 129-31, brings out the difficulty well.
10. Dharmakīrti's dates are estimated to be A.D. 600-660 by Erich Frauwallner. The *Pramāṇavārttika* is expected to be translated into English by Masatoshi Nagatomi in the Harvard Oriental Series soon.
11. Jitendranath Mohanty, B6133A, p. 38.
12. Harisatya Bhattacharya, B7818, p. 23.
13. B. Faddegon, B2603, p. 13.
14. Sadananda Bhaduri, B6048, p. 64.
15. Cf. Potter, B3719, p. 31-33.
16. B. N. Seal, B8908, p. 101.
17. See Bhaduri, B6048, Chapter IV, and Umesh Mishra, B6026, pp. 114-26.
18. The points involved here are much more complex than the text suggests. For good, extended discussions of the subject see Seal, B8908, pp. 104-17 and U. Mishra, B6026, pp. 75-95.
19. This is usually called *pāñcabhautikavāda*.
20. According to Ganganatha Jha the view to which Gautama is alluding is an old Sāṃkhva view that touch is the only sense-organ. Cf. Jha's Introduction to B264 (2).
21. See Masaaki Hattori, *Dignāga, on Perception* (Harvard Oriental Series, 47, 1968), 38-39.
22. Cf. Faddegon, B2603, p. 108.
23. See p. 113 for more on the distinction between specific and generic qualities.
24. U. Mishra, B6026, footnote 25 on p. 167.
25. U. Mishra, B6026, p. 170, notes that it is a view of the "Tantric school" that sound is a quality of God.
26. Potter, B3719, p. 23.
27. See Bertrand Russell, *Human Knowledge, Its Scope and Limits* (New York, 1948), pp. 266 ff.
28. Bhaduri, B6048, pp. 215 ff.
29. Bhaduri, B6048, p. 217.
30. Bhaduri, B6048, pp. 225-26.
31. Cf. Sadananda Bhaduri, B6044, and U. Mishra, B6026, pp. 132-59, for further discussions of the internal organ.
32. Mishra, B6026, pp. 375-76.
33. See Ingalls, B6100, for arguments.
34. See Jadunath Sinha, B8547, p. 304.
35. For an extended discussion of Udayana's arguments see Gopikamohan Bhattacharya, B6132.
36. See B. K. Matilal, B9041, for a discussion of this argument and the principle it depends upon.
37. See Bertrand Russell, "On denoting" in *An Introduction to Philosophical Inquiry*, ed. J. Margolis, (Toronto : Knopf, 1968), pp. 631-42.
38. See Bertrand Russell, "Descriptions," in *Semantics and the Philosophy of Language*, ed. L. Linsky (Urbana : University of Illionois, 1952), p. 98.
39. W. V. O. Quine, "On What There Is," in *From a Logical Point of View, op. cit.*, p. 8.

CHAPTER SIX

1. For an instructive discussion of the view see a symposium involving G. F. Stout, G. E. Moore, and G. Dawes Hicks in *Proceedings of the Aristotelian Society,* Supplementary Vol. III (1923), particularly pp. 114ff. Compare Karl H. Potter, B6083.

2. As, e.g., it is by Dhirendra Mohan Datta, B6086.

3. Anantlal Thakur, B2512, says that Vādirāja, the Jain author, reports the view of the Bhūṣaṇakāra on this point. However, the summary (below) of *Nyāyabhūṣaṇa* suggests his information is mistaken.

4. Cf. Ingalls, B3417, pp. 76-77.

5. Bhaduri, B6048, pp. 113-14.

6. On p. 82.

7. Jaideva Singh, B8212, p. 358.

8. B. N. Seal, B8908, pp. 137-43.

9. Seal, B8908, p. 134.

10. U. Mishra, B6026, p. 201.

11. Seal, B8908, p. 136.

CHAPTER SEVEN

1. H. N. Randle, B6014, p. 133.

2. B. K. Matilal, B6155A, pp. 85-95.

3. Cf. Karl H. Potter, "Is Nyāya Logic Extensional or Intensional ?," *Journal of the American Oriental Society* 88 (1969), 711-17.

4. Ingalls, B3417, p. 40.

5. Most Naiyāyikas think there is only one inherence, so this particular problem does not arise for them.

6. Because universals cannot inhere in other universals on pain of infinite regress. See the fourth of Udayana's "impediments to universalhood," discussed on pp. 135-136.

7. Bhaduri, B6048, p. 8.

CHAPTER EIGHT

1. As indeed does Ingalls in B3417, p. 34, passim.

2. We might say that a judgment is a belief-episode, intending that phrase in a fashion parallel to that use of "speech-episode" characteristic of contemporary British philosophers, as in Peter Strawson (speaking of J. L. Austin's view) in "Truth," reprinted in *Truth* (ed. G. Pitcher) (Englewood Cliffs, N. J. : Prentice-Hall, 1964), p. 33 ff.

3. Jitendranath Mohanty, *Gaṅgeśa's Theory of Truth* (Centre of Advanced Study in Philosophy : Visva-Bharati, Santiniketan, West Bengal, 1966), p. 27.

4. "Entertains" is a fudge for "either asserts or denies or commands or exhorts or . . . ," since language is used to do all these things with what are here being called "propositions."

5. K. Kunjunni Raja, B6510A, p. 194.

6. Cf. Ludwig Wittgenstein, *Philosophical Investigations,* (tran. G. E. M. Anscombe) (Oxford: Blackwell, 1953), pp. 1ff.

7. K. Kunjunnī Raja, B6510A, p. 124.

8. Satischandra Chatterjee, B6035, p. 22.

9. Ganganatha Jha, B5992, p. 284.

10. G. R. F. Oberhammer, B801A.

11. J. N. Mohanty, *Gangeśa's Theory of Truth, op. cit.*, pp. 2ff.

12. In the pre-Gaṅgeśa literature, that is, Mohanty's book, *ibid.*, and other sources clearly show that the Navya-Naiyāyikas discussed the problem.

13. I have indicated the sort of form such a system might take in formal terms on pp. 69-73, and a general account of the notion of *system* here employed was sketched in Chapter Three.

14. Cf. Mohanty, *Gangeśa's Theory of Truth, op. cit.*, pp. 52-54.

15. Gopinath Kaviraj, B7657.

16. Gopinath Kaviraj, B6007, p. 612.

17. Anantlal Thakur, B2589, p. 242.

CHAPTER NINE

1. Cf., e.g., Hakuju Ui, B1048, p. 83.

2. See Ui, B1048, pp. 82ff.; also E. Frauwallner, B1049.

3. I. M. Bochenski, *Formal Logic*, (tran. Ivo Thomas, South Bend, Indiana: University of Notre Dame Press 1961), p. 432.

4. See, e.g., Satischandra Vidyabhusana, B7617.

5. As recognized by Henry N. Randle, B7692.

6. Gerald Oberhammer, B1108, p. 130.

7. See, for example, A. B. Dhruva, B250; Anantlal Thakur, B801; Oberhammer, B1108; Ui, B1048, pp. 86-89.

8. Thakur, B801, pp. 85-86.

9. Randle, B6014, pp. 164-65.

10. Ingalls, B3417, p. 33.

11. Randle, B6014, pp. 170-72.

12. Cf. Sadhu Ram, B799.

13. See Randle, B6014, pp. 170-72. See also Oberhammer, B1108, pp. 136ff.

14. Guiseppe Tucci, B1077, pp. 383-84.

15. For the details of the summary of the following exchange between Naiyāyikas and Buddhists see Randle, B6014, Chapter IV (pp. 263-303).

16. Satischandra Vidyabhusana, B7534, p. 95.

17. Vidyabhusana, B7534, p. 95.

18. Guiseppe Tucci, B484, p. 480.

19. Stcherbatsky, B1174, Vol. II, 56-60.

20. Stcherbatsky, B1174, Vol. I, 244-45.

21. Stcherbatsky, B1174, Vol. II, 58.

22. B.K. Matilal, B800, pp. 69-73.

23. Stefan Stasiak, B971.

24. Randle, B6014, p. 156.

25. Cf. Yuichi Kajiyama's translation of Mokṣākaragupta's *Tarkabhāṣā* (Memoirs of the Faculty of Letters, Kyoto University, No. 10, Kyoto, 1966), note 259, p. 97.

26. Yuichi Kajiyama, "On the Theory of Intrinsic Determination of Universal Concomitance in Buddhist Logic," *Journal of Indian and Buddhist Studies*, 7.1 (1958), 34-35. This and the following paragaraph of the text follow Kajiyama's article closely.

27. The classification goes back to Udayana's *Ātmatattvaviveka*. See S. Bagchi, B8562, p. 151.

28. See Narendrachandra Vedantatirtha's Introduction to B2699, p. 87.

NOTES for SUMMARIES (prepared by Karl H. Potter unless otherwise indicated)

1. KAṆĀDA (Footnotes 6-16 prepared by Masaaki Hattori)

1. Ui, B1048, pp. 4-5.
2. Bhimacarya Jhalakikar, B5967.
3. Cf. V. V. Sharma, B53, p. 225.
4. Ui, B1048, pp. 8-9.
5. Ui, B1048, pp. 40-64.
6. This statement is based on Jambuvijaya's edition of Candrānanda (B58). The *sūtra*-text commented on by Śaṃkaramiśra has ten chapters, each consisting of two sections, and the *sūtrapāṭha* is quite different from that found in the Candrānanda version. Comparison of the *sūtrapāṭhas* is made on pp. 77-100 of B58.
7. The word *padārtha* ("category") does not occur in the *sūtras*.
8. In the *sūtras*, the word *bhāva* is used in the sense of *sattā*.
9. Later Vaiśeṣikas hold that the relation of inherence exists between (1) whole (*avayavin*) and parts (*avayava*), (2) quality (*guṇa*) and quality-possessor (*guṇin*), (3) motion (*karman*) and motion-possessor (*kriyāvat*), (4) universal (*jāti*) and individual (*vyakti*), and (5) an eternal substance (*nityadravya*) and ultimate particularity (*antyaviśeṣa*). The expression "effect and cause" does not apply to (4) and (5). Candrānanda states that "effect and cause" is a synecdoche; cf. his comment on VS VII.2.29.
10. Later Vaiśeṣikas recognize 7 other attributes, namely gravity (*gurutva*), fluidity (*dravatva*), viscidity (*sneha*), impression (*saṃskāra*), merit (*dharma*), demerit (*adharma*) and sound (*śabda*), all of which are mentioned in the *sūtras* but are not listed here.
11. Substance is twofold : one possessing many substances (*anekadravyaṃ dravyam*) and one possessing no substance (*adravyaṃ dravyam*). There is no substance which possesses one substance.
12. Inference of this type (employed also in the previous section) is called *pariśeṣa*.
13. The Mīmāṃsaka view on sound is criticized.
14. The *sūtra* III.1.13 allows different interpretations. Candrānanda's interpretation has been adopted.
15. The peculiar property of color, etc., is colorness (*rūpatva*), etc. Cf. Candrānanda's comment on VS IV.1.9.
16. Attributes are noninherence causes (*asamavāyikāraṇa*), while space and time are efficient causes (*nimittakāraṇa*).

2. GAUTAMA

1. Cf. N.C. Vedantatirtha, Introduction to Vol. II, B2699, 69-82, for a thorough review of scholarly opinions, as well as an opinion of his own identifying the author of the *Nyāyasūtras* with Dīrghatamas of the Ṛg-Veda.

2. Hermann Jacobi, B7535.
3. Satkari Mookerjee, B172, p. 150.
4. Cf. G. Jha, B5992 : 4, p. 256.
5. S.C. Vidyabhusana, B7606, pp. 155-66.
6. G. Oberhammer, in B801A.
7. Guiseppe Tucci, *Pre-Dinnāga Texts on Logic from Chinese Sources*, Gaekwad's Oriental Series, 49, (1929), xxvii.
8. Additional comments of interest concerning the author of the *Nyāyasūtras* may be found in the following : G. V. Devasthali, B6060; P. Masson-Oursel, B7674, p. 190 N. L. Sinha's Foreword to B240; Bodas' Introduction to B3910, p. 26; H.P. Sastri, B233, pp. 248-50; Dhruva, B250; N.C. Bhattacharya's Introduction to B263, D.R. Bhandarkar's Introduction to B3076; S. C. Vidyabhusana, B7617; Vidyabhusana, B7649; Ganganatha Jha's Introduction to B264 (2); B. Faddegon, B2603, pp. 46-47; H. N. Randle, B6014, p. 7.
9. There is little point in trying to translate Gautama's term *avyapadeśya* in the light of the differences of opinion found among the commentators as to what it means. See the commentaries on this *sūtra* by Vātsyāyana, Uddyotakara, Vācaspati, etc.
10. Again, these terms are left untranslated because they are differently understood by later writers.
11. It is unclear who is the opponent (*pūrvapakṣin*) and who the proponent (*siddhāntin*) here.
12. It is doubtful who is the opponent and who is the proponent here; I give one reconstruction.
13. IV.1.21 is ambiguous.
14. This text's interpretation is dubious.
15. For a detailed summary of all 24 kinds, see the summary of *Nyāyabhāṣya*, pp. 272-274.

3. VĀKYAKĀRA, 4. KAṬANDIKĀRA

1. Anantlal Thakur, Introduction to B58, pp. 11-12.
2. Thakur, B58, p. 13.
3. S. Kuppuswami Sastri, "Rāvaṇa Bhāṣya," *Journal of Oriental Research* 3, (1929), 1-5.
4. Thakur, B58, p. 13.

5. VĀTSYĀYANA

1. Cf. G. Jha, B5992: 4, p. 261.
2. S. C. Vidyabhusana, B7606, pp. 155-66.
3. Cf. Sadhu Ram, B799, p. 24.
4. D. Gurumurti, Introduction to B2980, p. xxvi.
5. Ingalls, B6100.
6. G. Oberhammer, B801A.
7. E. Windisch, B795.
8. Paranjpe, B270.
9. G. Jha, Introduction to B264 (2).
10. Randle, B6014, pp. 21-22. Other informative secondary literature on Vātsyāyana and his commentary include : E. Frauwallner, B8590, p. 22, S. C. Vidyabhusana, B796, p. 87; Anantlal Thakur, B801, p. 82; H. Ui, B1048, p. 16; N. C. Vedantatirtha, Introduction to B2699 (2).

11. There is some question about the status of parts of this section. Some of it has been argued to be *sūtra* or portions of a lost *Vārttika*. See E. Windisch, B795, and Randle, B6014, pp. 21-22 *contra* Windisch.

12. But this argument may be an opponent's contention.

13. Vātsyāyana's discussion of wholes begins here, though the *sūtra* is concerned with distinguishing perception from inference.

14. I take this argument as Vātsyāyana's. Uddyotakara takes it as an opponent's view.

15. Whether this is a separate topic is a matter of dispute. Also, it is, dubious who the opponent is in this section.

6. CANDRAMATI (Footnotes 5-12 provided by Masaaki Hattori)

1. Erich Frauwallner, B1049.
2. Hakuju Ui, B1048, p. 1.
3. Ui, B1048, pp. 9-10.
4. Frauwallner, B1049.
5. No Sanskrit commentary has so far become known even by name. *Shêng-tsung-shih-chü-i-lun-chang* by Tau-shih (T'ang dynasty) and the commentary of the same title by K'uei-chi are on record, but are not extant. A good number of commentaries were written by Japanese Buddhist scholars in the Tokugawa period: Hōjū (18th century), *Shòshūjikkugironki*; Koktasu (18th century), *Kachū Kandò Shòshūjikkugiron*, etc. Cf. Ui, B1048, p. 11; Hajime Nakamura's Japanese translation with Introduction and Notes (Kokuyaku Issaikyō, Ronsho-bu 23, Tokyo, 1958), pp. 528-30.
6. The name "Candramati" is found nowhere in Sanskrit sources. Hsuan-chang's translation of the name is Hui (*mati*)-yueh (*candra*). H. Ui and E. Frauwallner assume respectively Maticandra and Candramati to be the original name. Cf. Ui, B1048, p. 9, and Frauwallner, B1049. The original text is lost. The Chinese translation was done by Hsuan-chang in A.D. 648. The title was reconstructed from Chinese translation: Shêng-tsung-shih-chü-i-lun. Cf. Ui, B1048, p. 1.
7. Regarding the additional 4 categories, see Ui, B1048, pp. 123-26.
8. Dispositional tendency, merit, and demerit are not in the list of qualities in the *sūtra*. The view that the internal organ is the non-inherence cause of the qualities of the self involves difficulty, and therefore Ui reads the text in a different manner. Cf. Ui, B1048, pp.94, 142.
9. Frauwallner considers that, in setting forth this theory of inference, the author is influenced by Vārṣagaṇya-Vindhyavāsin of the Sāṃkhya school, but not by Vasubandhu-Dignāga of the Buddhist school. On this ground he assigns the author a date earlier than that of Praśastapāda, whose theory of inference is influenced by the Vasubandhu-Dignāga theory. Cf. Frauwallner, B1049, pp. 71-80.
10. According to Nyāya-Vaiśeṣika of a later period, relational absence is to be recognized as a type of absence under which prior absence, posterior absence, and absolute absence are grouped together. Cf. Athalye's edition of Annambhaṭṭa's *Tarkasaṃgraha* (B3910), p. 100.
11. The similarity to Praśastapāda's account is noticeable hereafter on many points. Cf. Ui, B1048, pp. 186ff.
12. Cf. Section (5) above; also Frauwallner, B1049, p. 74.

7. BHĀVIVIKTA

1. Cf. Anantlal Thakur, B6072, pp. 385-94.
2. E. Steinkellner, B6135, pp. 149-62.
3. Oberhammer, B801A.
4. For references see Thakur, B6072.
5. In his *Vādanyāyaṭīkā*, p. 142, says Thakur in B6072.

8. PRAŚASTAPĀDA

1. Erich Frauwallner, B8590, Vol. I, 16.
2. Theodore Stcherbatsky, B5281B. Stcherbatsky's views are summarized in Dhruva (B1073).
3. Cf. Krishna Rao (B970), who cites the authority of Kālipada Tarkācārya in his Introduction to B1055, p. 10.
4. Randle, B6014, pp. 26-32.
5. Frauwallner, B1049.
6. G. Tucci, B484 and B975.
7. Thakur, Introduction to B58, p. 12.
8. Recent papers by George Chemparathy have centered on the variety of names under which Praśastapāda and his works seem to have gone. See G. Chemparathy, "Praśastapāda and his other names, " *Indo-Iranian Journal*, 12, (1970), 241-54, and "The various names for the famous Vaiśesika work of Praśastapāda," *Akhila Bharatiya Sanskrit Parishad*, 1.1 (1969), 23-28.
9. B. Bhattacharya, Introduction to B2278, p. 89.
10. Thakur, B58, p. 13.
11. Other sources on Praśastapāda's date and work : H. Ui, B1048, p. 18 B. Faddegon, B2603, pp. 23-37.
12. This is the title of Praśasta (pāda's ?) commentary as given in Kamalaśīla's *Pañjikā* on the *Tattvasaṃgraha* of Śāntarakṣita, according to B. J. Sandesara in his Introduction to B58, p. vii. But see Chemparathy, *op. cit.*
13. S. Kuppuswami Sastri, B3930.

9. UDDYOTAKARA

1. In the concluding colophon of the work. Cf. Vidyabhusana, B7606.
2. G. Jha, B5992 : 4, p. 262.
3. Jha, Introduction to B264 (2).
4. Frauwallner, B8590, p. 22.
5. Cf. P. Tuxen, B3073; Jha, B5992; Vidyabhusana, B7606 and B1103.
6. Vidyabhusana, B1103; Vostrikov, B1201; Iyengar, B603A and B608; Tucci, B605 and B484; A. B. Keith, B604.
7. Oberhammer, B1108, p. 140.
8. D. N. Sastri, B6152, pp. 110-11.
9. Randle, B6014, p. 35.
10. Other secondary sources treating Uddyotakara's work : Thakur, B1106; P. Masson-Oursel, B7674, p. 206; Frauwallner, B1049.
11. See footnote 6 for literature discussing the authorship of the *Vādavidhi*.
12. According to Buddhists true perception should grasp the components of objects and not the objects themselves. Judgments about conventional objects, which involve bringing individuals under universals, are erroneous.
13. This refers to Dignāga, it seems clear; the definition is his.
14. Vācaspati Miśra says that this is Dignāga's definition.
15. Ganganatha Jha says this is Sāṃkhya's definition.

16. Presumably by a Mīmāṃsaka.

17. This passage in Uddyotakara is obscure.

18. Credited by Vācaspati Miśra to Vasubandhu.

19. Having criticized the *sūtra* of Vasubandhu, presumably in the *Vādavidhāna* (?), Uddyotakara proceeds to criticize its commentary in a similar fashion. Cf. references under note 6 above.

20. Stasiak, B971, calculates he generates 2032 kinds.

21. Vācaspati Miśra calls this *svarūpāsiddha*.

22. See Vaiśeṣikasūtras V.8.1.

23. Here Uddyotakara jousts with the Yogācāra idealist, specifically Vasubandhu, as is suggested by references to the *Viṃśika*.

10. ĀTREYA

1. See Thakur, B2335 and Frauwallner, B8590, p. 17. Also Thakur, B2337, p. 249.

2. Cf. Thakur, B2335.

3. D. N. Sastri, B6152, pp. 103-107.

4. D. N. Sastri, B6152, pp. 103-107.

5. Thakur, Introduction to B58, p. 12.

6. According to several writers cf. D. N. Sastri, B6152, p. 107, note 102. But Sastri thinks these writers are mistaken.

7. Kuppuswami Sastri, "Rāvaṇa-Bhāṣya", Journal of Oriental Research 3, 1929, pp. 1-5.

8. Thakur, Introduction to B58.

9. See B58.

10. Ui, B1048, pp. 14-15, 90-91.

11. Faddegon, B2603, pp. 34-40.

12. Ui, B1048.

11. PRĪTICANDRA

1. Cf. D. C. Bhattacharya, B6105, p. 33.

12. AVIDDHAKARṆA

1. For references, see Thakur, B6072.

2. Thakur, B6072.

3. Cf. B. Bhattacharya, Introduction to B2279.

4. Thakur, B6072.

5. Mahendra Kumar Jain, Introduction to B2433, pp. 75-76.

6. Umesh Mishra, *History of Indian Philosophy*, Volume Two (Allahabad, 1966), pp. 55-62.

7. Oberhammer, B801A.

8. Other references to Aviddhakarṇa are found in S. Mookerjee, B5283A, p. 85; E. Steinkellner, B6135.

9. Umesh Mishra, *History of Indian Philosophy*, Vol. 2, 57.

13. ŚAṂKARA (SVĀMIN)

1. Cf. S. Mookerjee, B2477, who asserts that Jayanta refers to Śaṃkarasvāmin on p. 393 of Gangadhara Sastri's edition of *Nyāyamañjarī* (B228).

2. Cf. D. C. Bhattacharya, B6105, p. 34.

3. G. Oberhammer, B1108, p. 149.

4. E. Steinkellner, B6135.
5. A. Thakur, B6072.
6. Umesh Mishra, *History of Indian Philosophy*, Vol. 2, 73-76.
7. Edited in B2660.
8. D. C. Bhattacharya, B6105, p. 34.
9. B6105, p. 33.

14. VIŚVARŪPA and 15. DHAIRYARĀŚI

1. Cf. B. Gupta, B2488, p. 25.
2. E. Steinkellner, B6135.
3. This paragraph is based on Umesh Mishra, *History of Indian Philosophy*, Vol. 2, 116-19. Thakur, B6072, also cites references to Viśvarūpa in the *Tārkikarakṣāṭīkā*.

16. JAYANTA BHAṬṬA

1. This tradition is reported by Ganganatha Jha, B2476, and is reviewed by others, including Hacker, B2484; Narahari, B2487; B. Gupta, B2488; and S. Mookerjee, B2477.
2. B. Gupta, B2488, p. 16.
3. Mookerjee, B2477, and Narahari, B2486, have studied Jayanta's style and personality.
4. According to Narahari, B2488A.
5. P. V. Kane, *History of Dharmaśāstra*, Vol. I (Poona, 1930), 698b.
6. B. Gupta, B2488, p. 16, reports that V. Raghavan thinks the *Nyāyakalikā* to be "a later compilation of Jayanta's sentences." Gupta credits Steinkellner for this information.
7. E. g., Thakur, B2464 and B2463, finds references to a work by this name in Jñānaśrīmitra's *Īśvaravāda* and *Kṣaṇabhaṅgādhyāya*. Thakur thinks these passages refer to Trilocana's work, not Jayanta's.
8. Reported by S. N. Sukla in a paper read at the 1955 session of the All-India Oriental Congress. Sukla remarks that Phaṇibhūṣaṇa Tarkavāgīsa refutes any relation of pupil-teacher or teacher-pupil between Jayanta and Vācaspati in his *Nyāyaparicaya* (B6022).
9. The editor of E says that it is Vācaspati Miśra who is being referred to ! According to Oberhammer, B1108, Jayanta had two main sources, the *ācārya* and the *vyākhyātṛ*. Oberhammer thinks that these philosophers are among those cited by Kamalaśīla in his *Pañjikā* on Śāntarakṣita's *Tattvasaṃgraha*, and that they preceded Uddyotakara.
10. This is Dharmakīrti's famous definition, given in the *Nyāyabindu*. Cf. Theodore Stcherbatsky, B1174, Vol. II, 14.
11. The reference is to the *Yuktidīpikā*.
12. Probably Praśastapāda is referred to. But see p. 282 and note 8.
13. This whole discussion follows closely the Vyadhikaraṇa section of Kumārila's *Ślokavārttika*.
14. See J. Sinha, *Indian Psychology* (*Cognition*), (Calcutta, 1958), Chapter XXI, for a more extended summary of Jayanta's arguments concerning meaning.
15. G. Jha, B2476.
16. Umesh Mishra, *History of Indian Philosophy*, Vol.2, 125.
17. G. Kaviraj, B6007, p. 625.

17. THE NYĀYARATNAKĀRA

1. G. Kaviraj, B6007, p. 614.

18. TRILOCANA

1. A. Thakur, B2724.
2. Thakur, B2724. Thakur thinks the order of mention, which has Trilocana third in line, is chronological. But D. C. Bhattacharya, B6105, says the order as given elsewhere has Trilocana before Bhāsarvajña.
3. D. C. Bhattacharya, B6105.
4. Thakur, B2464, has found references in Jñānaśrīmitra's *Īśvaravāda* to this work under this title.
5. Attributed to Durveka Miśra, a Buddhist writer. Cf. Thakur, B2724.
6. Cf. A. Thakur, B2463, p. 40, and B6072.
7. Thakur, B2463, p. 40.
8. Thakur, B2463.
9. Gerhard Oberhammer, "Der Svābhāvika-Sambandha, ein geschichtlicher Beitrag zur Nyāya-Logik," *Wiener Zeitschrift fur die Kunde des Sud und Ostasiens*, 8 (1964), 131-81.
10. Thakur, B2463, p. 37.
11. Thakur, B2463; also S. C. Vidyabhusana, B7649.
12. Thakur, B2463, p. 39.
13. Thakur, B2463, p. 40.
14. Discussed in Oberhammer's article referred to in footnote 9 above.

19. BHĀSARVAJNA

1. R. Samasastry, B7992, p. 354.
2. Cf. Ganganatha Jha, B2476; S. C. Vidyabhusana, B2503, p. 2.
3. A. Thakur, B2463, p. 40.
4. Daniel H. H. Ingalls, in the article cited in footnote 12, Chapter Two above.
5. D. R. Sarma, B2509.
6. This work has been edited by C. D, Dalal, Gaekwad Oriental Series, Baroda, 1920.
7. Cf. A. Thakur, B2512.
8. Thakur, B2512.
9. Additional materials on Bhāsarvajña can be found in the following : V. P. Vaidya, B2507; D. C. Bhattacharya, B2587 and B6105; G. Kaviraj, B6007b; C. R. Devadhar's Introduction to B2505; *U. Mishra, History of Indian Philosophy*, Vol. 2, 81-90.

20. SĀNĀTANI

1. D. C. Bhattacharya, B6105, p. 33.
2. V. Varadachari, B2747.

21. VYOMAŚIVA (Footnotes 4-62 prepared by V. Varadachari)

1. G. Kaviraj, B6007, p. 627.
2. Cf. V. Varadachari, B1367, p. 173.
3. Cf. D. C. Bhattacharya, B6105, pp. 10-12. Other references to *Vyomavatī*

are to be found in the following : E. Frauwallner, B8590, p. 17; D. R. Sharma, B1366A; Brahmananda Gupta, B1368.

4. Cf. Citsukha, *Tattvapradīpikā* (B3225), pp. 176-77.

5. This is given as the name of the work in the colophon in the Vizianagaram Sanskrit Series edition of the *Padārthasaṃgraha* (B1052).

6. There are numerous references in the later works on Nyāya-Vaiśeṣika where this work is referred to as the *Bhāṣya* of Praśastapāda. E.g., (1) Jagadīśa's *Sūkti* (B1054), p. 1; (2) Viśvanātha Nyāyapañcānana's *Siddhāntamuktāvalī* (B4159), p. 188.

7. The definition of *bhāṣya* as contained in : "Sūtrārtho varṇyate yena padaiḥ sūtrānusāribhiḥ svapadāni ca varṇyante bhāṣyam bhāṣyavido viduḥ" does not apply to the *Padārthadharmasaṃgraha*. The only justification, though not really sound, that could be offered lies in the author's references to the aphorisms of Kaṇāda e.g., II.2.11 under *kāla*; IX.2.6 under ātman; VIII 1.1.9 under *saṃkhyā*; etc. This is only an inadequate defence. The *Vyomavatī* contains a number of references to the text of Praśastapāda as *bhāṣya*. See pp. 234, 246,6, 257, 272 See also *Nyāpakan dalī* (B1052), p. 289.

8. The aphorism "dharmaviśeṣaprasūtā dravyaguṇakarmasāmānyaviśeṣa-samavāyānāṃ padārthānāṃ sādharmyavaidharmyābhyāṃ tattvajñānān niḥśreya-sam." (I.1.4) This must have been responsible for dividing the entire treatise under two heads, namely *sādharmya* and *vaidharmya*. For the aphorisms quoted see footnote 6 above.

9. At Śaṃkara Miśra, *Vaiśeṣikasūtropaskāra* 9.2.13.

10. See *Nyāyakandalī* (B1052), pp. 2, 280; Introduction, p. 19.

11. See *Vyomavatī* (B1054), p. 19.

12. See *Vyomavatī* (B1054), pp. 20 (ca), 462, 536, 607.

13. This is dealt with in V. Varadachari, B2550B.

14. See Introduction to the edition of the *Nyāyakandalī* (B1052), p. 19. Śrīvatsa, who is said to have written the *Līlāvatī*, cannot be identical with Śrīvatsa, a predecessor of Udayana and a Naiyāyika. His views are cited in the *Tātparyapari-śuddhi* (in manuscript, collection of the Sanskrit Department, Madras University : II.89, 91; III, p. 30, p. 106; V, p. 27, p. 40.) The references prove that he wrote only on the Nyāya system. The Līlāvatī referred to here cannot be the same as the *Nyāyalīlāvatī* written by Śrī Vallabha (B2926, B2927, B2928). This work is, like the *Padārthadharmasaṃgraha*, an independent treatise on the Vaiśeṣika system.

15. The following references to passages in the *Padārthadharmasaṃgraha* (B1052) may have formed parts of commentaries on Praśastapāda's work. Vyoma-śiva does not mention any commentators by name: pp. 51, 107, 161, 162, 189, 190, 223, 228, 229, 246, 301, 330, 399, 446, 450, 466, 477, 478, 483, 487, 489, 502, 509, 511, 516, 524, 533, 538, 539, 541, 542, 549, 551, 552, 554, 555, 557 (twice), 561, 563, 594, 612, 619, 620, 621, 625, 634, 660, 661, 666, 679, 694.

Some of these could have been references to works on other systems of thought. It is not possible from the evidence available to make a decisive statement on this. There are numerous references to interpretations which are condemned by Vyoma-śiva. They are given below with reference to their subject matter : *uddeśaprakaraṇa*, p. 20 (Ka); *viśeṣa-uddeśaprakaraṇa*, p. 57; *sādharmyaprakaraṇa*, pp. 121, 125, 142, 156, 157; *pṛthivī*, pp. 222, 234; *vāyu*, pp. 274, 323; *ākāśa*, pp. 323, 326, 328; *kāla*, pp. 344, 346, 347; *ātman*, p. 394; *manas*, pp. 424, 426; *guṇasādharmya*, p. 434; *guṇapākajapra-kriyā*, pp. 446, 450; *saṃkhyā*, pp. 456, 457, 468, 469; *parimāṇa*, p. 477; *pṛthaktva*, p. 481; *vibhāga*, pp. 498, 501, 503, 507; *paratvāparatva*, p. 516; *buddhi*, pp. 524, 533; *viparyaya*,

p. 539; *pratyakṣa*, p. 554; *laiṅgika*, pp. 563, 564, 573, 574; *laiṅgikāvayava*, p. 602; *laiṅgikāpadeśābhāsa*, pp. 607, 618; *apratyayakarma*, p. 672.

16. See the Introduction by Dundhiraja Sastri to B1054, p. 6.

17. The *Saptapadārthī* of Sivāditya has much in common with the *Kiraṇāvalī*, *Lakṣaṇāvalī*, and *Lakṣaṇamālā* of Udayana. For instance, both writers divide the categories into positive and negative groups. The definitions of *tattva*, *lakṣaṇa*, *buddhi*, *viśeṣaṇa* and *upalakṣaṇa* are identical in the works of these two writers. On the contrary, *Vyomavatī* does not classify the categories into clear cut divisions such as positive and negative, nor does it contain definitions of the above-mentioned kind to suggest any relationship between him and Śivāditya. The two writers must have been different.

18. The work under this title is cited in the *Nayanaprasādinī* on Citsukha's *Tattvapradīpikā* (B3225), p. 180. It dealt with the *mahāvidyā* syllogism, and is now lost. There is no reference to this kind ofsyllogism in the *Vyomavatī* to suggest identity of Vyomaśiva and Śivāditya. The work *Lakṣaṇamālā* that is available is now declared to be the work of Udayana. Cf. A. Thakur, B2680.

19. See *avayavin*, p. 46; *īśvaravāda*, p. 308; *kṣaṇabhaṅga*, p. 402; *pradhānavāda*, p. 546; *pratyakṣa*, p. 557; *śabdaprāmāṇya*, p. 584; *pramāṇasaṃkhyā*, p. 586. Vyomaśiva refers to his teacher on these pages.

20. In two other contexts, reference is made to the preceptor. One is while explaining the purpose served by the use of the word "ekaikaśaḥ" in taking up the treatment of each category, p. 189. The other is reagarding the putting of emphasis on the treatment of the *hetu*, p. 565.

21. Cf. pp. 483, 689.

22. Pp. 579, 580, 590, 591, 592, 598, 599.

23. Pp. 221, 306, 307, 524, 525, 526, 567, 602, 627, 681, 686.

24. Pp. 20(gha), 329, 536.

25. Pp. 129, 602.

26. Vākyapadīya II, 419.

27. Cf. Nyāyakandalī (B1052), pp. 117, 159.

28. Cf. *Kiraṇāvalī* (B36), p. 226; *Vyomavatī* (B1054), p. 488.

29. "yathaidhāṃsi samiddho 'gnir bhasmaṣāt kurute kṣaṇāt, jñānāgniḥ sarvakarmāṇi bhasmasāt kurute tathā." *Bhagavadgītā IV.* 37

30. "nābhuktaṃ kṣīyate karma kalpakoṭi śatair api, avaśyam anubhoktavyaṃ kṛtaṃ karma śubhāśubham."

31. This act shows the influence of theistic tendencies on the author. It is easy to trace it to the influence of the *Bhagavadgītā* and Yogasūtras which preach the act of surrendering everything to God. See *Bhagavadgītā IX.*27 and Yogasūtra with *Vyāsabhāṣya* II.1.

32. This view was the one held by some religious schools of Vaiṣṇavism and Śaivism. The deep divine love which the followers of Vaiṣṇavite and Śaiva schools could not help but treat as the stage of release was marked by bliss, where the devotee can have a permanent abode in the vicinity of God. For the concept of *mokṣa* in the Vaiṣṇava and Śaiva schools see Citsukha's commentary on *Nyāyamakaranda* (B3203), p. 271.

33. "athāto dharmaṃ vyākhyāsyāmaḥ". *Vaiśeṣikasūtras* I.1.1.

34. "yato 'bhyudayaniḥśreyasasiddhiḥ sa dharmaḥ". *Vaiśeṣikasūtras* I.1.2.

35. Cf. V. Varadachari, B6140A.

36. The use of the word *chāyā* has significance here, as astudy of this becomes

possible only in this case and not *tamas* or pitch-darkness, the word used by most of the other commentators on Praśastapāda's work and later writers on the Nyāya-Vaiśeṣika system.

37. See "bhūyastvāt gandhavatvāc ca pṛthivī gandhajñāne prakṛtiḥ," *Vaiśeṣikasūtras* VIII.2.5. Śaṃkara Miśra remarks that the term *bhūyastva* is a technical one in the Vaiśeṣika system (cf. *Upaskāra* on this *sūtra*).

38. See *Nyāyabhāṣya* (B253), p. 493.

39. Vyomaśiva writes : "asya ca sūtrasyedaṃ bhāṣyam : bhūyastvāt rasavattvāc codakaṃ rasajñāne prakṛtiḥ." (p. 246) There is no aphorism of Kaṇāda like this, but Vyomaśiva adopts the *sūtra*-form for it as the pattern of the aphorism *VIII*.2.5. Justification for this is to be found in the aphorism "tathāpas tejo vāyuś ca rasarūpasparśāviśeṣāt," *Vaiśeṣikasūtras* *VIII*.2.6.

40. See "asya ca sūtrasyedaṃ bhāṣyaṃ : bhūyastvāt rūpavattvāc ca rūpajñāne prakṛtiḥ kāraṇaṃ tejaḥ," p. 257. An explanation similar to that given in note 39 applies here.

41. See "asya ca sūtrasyedaṃ bhāṣyam : bhūyastvāt sparśavattvāc ca sparśajñāne prakṛtir vāyur iti," p. 272. The explanation given in note 39 applies here.

42. Śrīdhara and Udayana brush aside this view without entering into the merits of Vyomaśiva's arguments.

43. See Īśvarakṛṣṇa's *Sāṃkhyakārikās*, verse 57.

44. See Varadarāja's *Nyāyakusumāñjalibodhanī* (B2985), p. 91.

45. Trees do not have selves, according to Śrīdhara. Cf. B1052, p. 83.

46. See "ātmā vā idam eka evāgra āsīt," Aitareya Upaniṣad I.1.

47. The other commentators do not make any contribution of this kind on the topic.

48. There is a lot of difference of opinion regarding how this is to be calculated. See *Vyomavatī*, B1054, pp. 445-50; *Nyāyakaṇḍalī*, B1052, pp. 108-11; *Kiraṇāvalī*, B36, pp. 182-92.

49. "Sāmānyapratyakṣād viśeṣāpratyakṣād viśeṣasmṛteś ca saṃśayaḥ." Vaiśeṣikasūtras II.2.17.

50. "Samānānekadharmopapatter vipratipatter upalabdhyanupalabdhyavasthātaś ca viśeṣāpekṣo vimarśaḥ saṃśayaḥ." *Nyāyasūtra* I.1.23.

51. Vyomaśiva does not know the interpretation offered by Vācaspati Miśra for the last two words in Gautama's definition.

52. "Svarūpālocanamātram." It is difficult to find out which writer was the earliest to use the expression *ālocana*. It occurs in *Sāṃkhyakārikā* 28 and in Kumārila's *Ślokavārttika*, *pratyakṣa* section, verse 112.

53. This is a novel interpretation not suggested by any writer on Nyāya-Vaiśeṣika. It is true that these safeguards are required to be made in this definition. The cognition produced from the *hetu* must be free from error (*avitatham*). It must be decisive (*vyavasāyātmaka*) and "nonverbal" (*avyapadeśya*). Expressions must not be used or must not form part of the inferential cognition, as otherwise there will not be any difference between inference and verbal testimony.

54. See :

> "kāryakāraṇabhāvād vā svabhāvād vā niyāmakaḥ,
> avinābhāvaniyamo darśanān na na darśanāt".
>
> Dharmakīrti's *Pramāṇavārttika*, *svārthānumāna* 33.

55. This may suggest the author's having been a native of Kashmir. It cannot be taken as decisive evidence however, since a reference of this kind may be given by any writer, Kashmiri or not, who undertakes a pilgrimage to Kedārnāth.

56. Among the commentators of the early period Vyomaśiva goes against the spirit of Praśastapāda's utterance regarding the place of verbal testimony. Udayana, B36, pp. 301-17, also argues in the same strain. Śrīdhara, B1052, pp. 215-16, however, sticks to the purport of the passage in the original and argues for treating the verbal testimony as coming under inference.

57. See *Kiraṇāvalī*, B36, pp. 319-21. Udayana's treatment of this is more detailed than that of Vyomaśiva.

58. Śrīdhara, B1052, pp. 220-22, and Udayana, B36, pp. 321-23, argue to bring comparison under inference.

59. Though Praśastapāda wrote that nonapprehension should be brought under inference, all the three early commentators (cf. *Nyāyakandalī*, B1052, pp. 225-30; *Kiraṇāvalī*, B36, pp. 326-29) have attempted to show that perception itself enables the apprehension of absences and thus nonapprehension can be brought under perception.

60. See Uddyotakara, *Nyāyavārttika*, B1104, p. 16; Vācaspati Miśra, *Tātparyaṭīkā*, B223, pp. 37-38; Udayana, *Pariśuddhi*, B2705A, pp. 303-13; and *Kiraṇāvalī*, B36, pp. 333-35.

61. "Paśyataḥ cakṣuṣā rūpaṃ heṣāśabdaṃ ca śṛṇvataḥ
Khuranikṣepaśabdaṃ ca śveto 'śvo dhāvatīti dhīḥ."

Ślokavārttika VII, 358

62. See :

1. "Vṛddhā yuvānaḥ śiśavaḥ kapotāḥ
khale yathāmī yugapat patanti
Tathaiva sarve yugapat padārthāḥ
parasparānvayino bhavanti."

2. "Yadyad ākāṃkṣitaṃ yogyaṃ saṃnidhānaṃ prapadyate
Tena tenānvitaḥ svārthaḥ padair eva gamyate."

where the views of the ancient and modern schools of Nyāya-Vaiśeṣika are expressed. The views stated and reflected upon in this passage by Vyomaśiva show the analytical approach adopted by his predecessors. These theories appear to have been held, but for a few of them, by writers in the Nyāya and Vaiśeṣika schools.

63. Vyomaśiva refers to the *Nyāyabhāṣya* and cites passages from it (on pp. 20 (gha) and 329). He twice cites a passage from the *Nyāyavārttika* (cf. pp. 129, 602). A work probably on the Vaiśeṣika system called *Padārthasaṃkara* is cited twice (pp. 483, 689) in support of his interpretations. An obscure word, *mibratava* is used on p. 531 and it appears that it refers to the name of the followers of some school of thought whose view, according to Vyomaśiva, had been set aside. The identity of this school is hard to ascertain; the reading appears to be corrupt.

In all likelihood Vyomaśiva was responsible for classifying the noninherent cause into two kinds and giving them a separate treatment in regard to certain qualities. Though he does not actually use the word, it is possible to guess that the first kind could have been named *laghvī*, since the latter is referred to by him as *mahatī*, which he illustrates on pp. 438, 476, 478, 488, 489.

While interpreting the passage "evaṃ dharmair vinā dharmiṇām uddeśaḥ kṛta iti," Vyomaśiva writes that the *dharmins* have been enumerated without their respective features. Vyomaśiva refers to a view of some scholars who hold, in contrast, that the *dharmins* are described here together with their features. A difficulty arises in justifying that view, since the word *vinā*, which means "without," is found used. The author interprets *vinā* skillfully as "by Kaṇāda." The word *vi* means "bird" and *vinā* thus means "by the bird 'owl,' " which is another name for Kaṇāda (p. 114).

Vyomaśiva, from the beginning of his attempt to comment on the *Padārthadharmasaṃgraha*, continues to refer to the *tattvajñāna* (true knowledge) as related only to the 6 categories, though he is not unaware of the role played by absences (p. 644).

Though primarily he is a writer on the Vaiśeṣika school, Vyomaśiva brings in materials belonging to the Nyāya school to provide convincing expositions. This is clear from his treatment of the definition of perception and the number of fallacies of the *hetu* as well as topics such as the ways of losing an argument, futile rejoinders, and cavil (see pp. 326, 501).

There is, strictly speaking, no place in Nyāya-Vaiśeṣika for the *liṅgaśarīra* or "subtle body," since the self, which is all-pervasive, cannot move from place to place. If any reference is made to the self's going it must be taken to be a figurative expression. Getting reborn happens to the self which is of course there. Vyomaśiva recognizes, on the contrary, the existence of the subtle body; he calls it *sūkṣmaśarīra*, *antarābhavaśarīra* and *ātivāhikaśarīra*. He says that it must be admitted on the strength of the Vedic authority (pp. 20, 559, 676).

Among the three commentators on the *Padārthadharmasaṃgraha* it is Vyomaśiva who was the earliest. References made by Vyomaśiva to previous commentators on Praśastapāda's work are by far more numerous than those found in the *Nyāyakandalī* or *Kiraṇāvalī*. Each of the authors of the other two commentaries was following his own tradition. In point of expression Vyomaśiva suffers in contrast with Udayana, whose language is very polished, forceful, and dialectic. Vyomaśiva's language is forcible but lacks vigor. It is very elaborate, but lacks the finish of Udayana. Śrīdhara's language is nearer Vyomaśiva's, but also greater in its appeal. Vyomaśiva has the unique distinction of having given a thorough exposition of the entire *Padārthadharmasaṃgraha*, leaving not a single passage unattended to. The same cannot be said of Śrīdhara and Udayana who, though attempting to comment on the original, did leave certain passages unexplained because they were simple. Of all three, Śrīdhara clings to the text and stands by the spirit of the text without swerving from the original. The other two very often bring in matters from the Nyāya sphere and incorporate them into Vaiśeṣika doctrine whenever they are found fitting. Udayana has, however, even more leaning to Nyāya than Vyomaśiva.

In spite of all this Udayana came to be looked upon as an authority on the Vaiśeṣika system as well as on Nyāya. Later writers frequently refer to his views and make references to Śrīdhara sparingly. Vyomaśiva was forgotten in the later school of Nyāya and was referred to for his opinions only by a few writers such as Vallabha, Vādidevasūri, and others. The reason for this is not hard to guess. Udayana achieved unique distinction by his classic on theism, the *Nyāyakusumāñjali*, and acquired the coveted title Nyāyācārya. The authority which he wielded because of his reputation became applicable also in the field of Vaiśeṣika. There are passages to confirm this in Padmanābha Miśra's *Setu* on Praśastapāda (B1054), pp. 57, 62, 80, 119, 169, etc. See also Jagadīśa Bhaṭṭācārya's *Sūkti* (B1054), p. 166. Also Viśvanātha's *Siddhāntamuktāvalī* with *Dinakarī* pp. 76, 150, 501, etc.

It is evident that Udayana's works eclipsed the contribution made by Vyomaśiva to Vaiśeṣika. Vyomaśiva's contribution is as important as that of Śrīdhara and Udayana and deserves careful and sympathetic appreciation.

22. VĀCASPATI MIŚRA

1. Reported by Ganganatha Jha, B5992: 4, pp 263 ff.
2. D. C. Bhattacharya, B6105, p. 23.
3. Umesh Mishra, *History of Indian Philosophy*, Vol. II, 100.

4. *Ibid.*, p. 106, footnote 5.
5. Paul Hacker, B2484.
6. Aș pointed out by H. G. Narahari, B2487: 22.1-2, p. 78.
7. D. C. Bhattacharya, B2587.
8. See, e.g., D. H. H. Ingalls, B2173.
9. Narahari, B2487.
10. Professor Matilal writes : "This is a commentary on Uddyotakara's *Nyāyavārttika*. The job of a person writing a summary of a commentary like *Tātparyaṭīkā* is difficult and I doubt whether it can be done with much success. It seems to be doubly difficult when we think that Vācaspati comments not only on Uddyotakara but sometimes also on Vātsyāyana and Akṣapāda. The *Tātparyaṭīkā* is an interesting and important document of the Nyāya school. There was a big time gap between Uddyotakara and Vācaspati and some interesting developments took place in the Nyāya school during this time. Part of the importance of *Tātparyaṭīkā* lies in the fact that it records some of these developments. In my synopsis I have tried to note them as far as practicable. But my synopsis, I admit, has been selective. In many places I have skipped. In some places, Vācaspati's remarks need much explaining, which I have found hardly feasible to be put in a summary. In general, I have refrained from making any value-judgment of Vācaspati's arguments—which, to be frank, do not always seem to be convincing. I also suspect Vācaspati's originality in many places as far as the Nyāya school is concerned. Besides, Vācaspati appears to have a somewhat clumsy way of putting even a subtle point which is apt to be missed at first sight."
11. For a translation of this portion of Vācaspati readers are referred to Theodore Stcherbatsky, *Buddhist Logic* (B1174), Vol. II, 255-98.
12. This passage also is translated in Stcherbatsky, *ibid.*

23. ADHYĀYANA

1. Umesh Mishra, *History of Indian Philosophy*, Vol. II, 127. See also A. Thakur, B6072, p. 15, who finds references to Adhyāyana in Abhayadeva's *Sanmatitarkaṭīkā* and Karṇagomin's *Pramāṇavārttikaṭīkā*.

24. VITTOKA

1. Umesh Mishra, *History of Indian Philosophy*, Vol. II, 116. On Vittoka cf. also A. Thakur, B2724 and B2663.

25. NARASIṂHA

1. U. Mishra, *History of Indian Philosophy*, Vol. II, 93.
2. E. Steinkellner, B6135.

26. ŚRĪDHARA

1. Cf. N. C. Bhattacharya, B2981, p. viii.
2. G. Kaviraj, B6007, p. 631.
3. V. Varadachari, B1367.
4. G. Kaviraj, B6007.
5. For other information on Śridhara cf. D. C. Bhattacharya, B2587, p. 353; M. Chakravarti, B5994, p. 262; B. Faddegon, B2603, pp. 77-78, 601,

27. ŚRĪVATSA

1. D. C. Bhattacharya, B6105, pp. 20-22.

2. Udayana seems to suggest that he is commenting on the second chapter of Vācaspati's *Tātparyaṭīkā* to convince Śrīvatsa of its greatness. Cf. D. C. Bhattacharya, B2746, p. 153; V. Varadachari, B2747, p. 288.

28. ANIRUDDHA

1. This information and the remainder of the remarks following are based on J. S. Jetly, B2595.

2. D. C. Bhattacharya, B6105, p. 7.

29. UDAYANA (Footnotes 16-44 provided by V. Varadachari)

1. Ganganatha Jha, B5992 : 4, p. 266.

2. S. C. Vidyabhusana, B7649, p. 142.

3. D. C. Bhattacharya, B6105.

4. That of Vidyabhusana, B7649, p. 142.

5. G. Jha, B5992 : 4, p. 264.

6. A. Thakur, B2724, Introduction, pp. 32-33.

7. D. C. Bhattacharya, B6105, p. 6.

8. D. C. Bhattacharya, B2707, p. 143.

9. D. C. Bhattacharya, B2587, pp. 353-54.

10. In the sources cited in the previous three footnotes.

11. D. C. Bhattacharya, B6105.

12. Additional sources supplying information or commentary about Udayana include : N. C. Vedantatirtha, Introduction to B2699(2) and B2696; A. Thakur, Introduction to B58, p. 4; Nandalal Sinha, Introduction to B240, pp. ii-iii; N. K. Telang, Introduction to B2678, p. 5; A. Thakur, B2680; N. C. Vedantatirtha, Introduction to B2705; V. Varadachari, B2708; Gopinath Kaviraj, Introduction to B2985, pp. vii-ix; M. Chakravarti, B5994, p. 263; G. Kaviraj, B6007; Umesh Mishra, *History of Indian Philosophy*, Vol. II, 147-207.

13. A. Thakur, B2680.

14. S. Subrahmanya Sastri in B2679, Introduction.

15. In B2679 and B2681.

16. The Buddhists use the word *pratibandha* in the sense of invariable concomitance. See Ratnakīrti's *Iśvarasādhanadūṣaṇa*, B2660, p. 41.

17. See Kamalaśīla's *Pañjikā* on *kārikā* 375 of the *Tattvasaṃgraha* of Śāntarakṣita; Dharmakīrti's *Pramāṇavārttika* IV. 224; *Hetubinduprakaraṇa*, p. 63; Jñānaśrīmitra's *Kṣaṇabhaṅgādhyāya*, p. 146.

18. Here the reference is to the treatment given to the *apoha* doctrine by Jñānaśrī in his *Apohaprakaraṇa*, B2724, pp. 201-32

19. An object that is apprehended is referred to in a general way as "blue" in the Buddhist literature.

20. This refers to Dharmakīrti's condemnation of universals, cited in the *Vyomavatī*, p. 682.

21. Here there is reference to a *śloka* which occurs on p. 89 of Jñānaśrī's *Kṣaṇabhaṅgādhyaya*, B2724. It is cited by Udayana with slight alterations to refute the Buddhist standpoint.

22. In this section, called *Bāhyārthabhaṅga*, the author reflects the idealistic and nihilistic theories of the Buddhists. The Mādhyamikas hold that voidness (*śūnya*) and empirical reality (*saṃvṛtisatya*) are to be considered with reference to

the ultimate truth. Udayana shows that there is no authority for admitting voidness. Empirical reality might be admitted if a permanent, unchangeable, and characterless entity is admitted in place of voidness. This comes to recognizing the standpoint of the Advaita Vedāntins who take this entity to be Brahman. Udayana then summarizes the tenets of Advaita. He discusses the nature of the external world. Buddhist doctrines about this are condemned on the strength of the nonavailability of reasons for them. Application of logical arguments is then discussed, following which there is a discussion of the nature of difference (*bheda*). In this connection, it is proved that there is the composite whole as distinct from its parts. The nature of objects is to be ascertained through our judgments. Whether the judgments are valid or not is to be ascertained extrinsically. The reality of the universe is then proved.

23. This refers to Mādhyamika Buddhism.

24. Advaita Vedāntins hold that the world is empirically real (*saṃvṛtisatya*). This view is not acceptable to the Nyāya school. Yet the author does not refute the view. It appears that Udayana must have had leanings toward Advaitic doctrines, since they are not contradicted here. Hence Madhusūdana Sarasvatī and Gauḍabrahmānanda cite Udayana as an authority in support of Advaitic doctrine. See Madhusūdana's *Advaitasiddhi*, B3964, p. 65.

25. Bhāgīratha's commentary, B2676, pp. 509-10.

26. Commentaries of Śaṃkara Miśra and Bhāgīratha, B2676, pp. 508, 510.

27. Bhāgīratha's commentary, B2676, p. 510.

28. This is the view held by Sāṃkhya. See Bhāgīratha's commentary, B2676, p. 510. Śaṃkara Miśra and Raghunātha Śiromaṇi take this as the view of the Advaita Vedāntin, however. See B2676, pp. 508, 513.

29. The author's leanings toward Advaita Vedānta are revealed here.

30. The same arguments are given by the Buddhist writers.

31. The reference is to arguments given, e.g., in Kamalaśīla's *Tattvasaṃgrahapañjikā* (B2279), pp. 198-200.

32. *Abhyāsa* is a stage in which the first cognition which arises about an object is compared with a cognition of the same kind which is already available about a similar object.

33. This matter is dealt with by Udayana in his *Pariśuddhi*, B2705A, pp. 58, 112. For further details, see V. Varadachari, B6138, p. 384.

34. In spite of his leanings toward the Advaita tenets, the author does not openly state that the Advaitic concept of the unreality or illusory nature of the world is tenable. He simply says that the existence of the real world was ignored by the Vedāntins. This is an ingenious way of trying to create a rapprochement between the Vedānta and Nyāya systems.

35. The author refers here to the passage in Jñānaśrī's *Kṣaṇabhaṅgādhyāya*, B2724, p. 73.

36. See Śaṃkara Miśra's commentary on this passage, B2676, p. 772.

37. Śaṃkara Miśra's commentary, *ibid.*, p. 773.

38. See Chāndyogopaniṣad 8.12.1: "aśarīraṃ vā vasantam."

39. See Nyāyakusumāñjali, II, (edition unidentified), pp. 64-65.

40. *Ibid.*, pp. 56-62.

41. *Ibid.*, pp. 57, 64-65.

42. See Nyāyasūtras IV.2.38-49.

43. Here the author seeks to place Nyāya on a higher rung than Vedānta.

44. Before Udayana Trilocana, Jayanta, and others had made distinctive

contributions to the refutation of *kṣaṇabhaṅgavāda*. Udayana's treatment of this topic is original in subjecting the opponent's arguments to a severe criticism of all the possible alternative interpretations of them. Specifically, such detailed treatment is found in the following places : (1) An object, having contact and not having contact with the accessories, must be changing (pp. 157-64). (2) Destruction of an object is uncaused and therefore the doctrine of momentariness is established (pp. 223-61). (3) The criticism of the *apoha* theory (pp. 278-314). (4) Difference in means employed to grasp them does not entail difference in the objects grasped. By denouncing the Buddhist view, the author secures a strong ground for establishing the stability of the world (pp. 330-58). (5) Establishment of universals (pp. 401-14).

Much originality is revealed by the author in refuting the idealistic view of the Buddhists. He refers in this section repeatedly to passages identified as those of Jñānaśrī by the commentator Śaṃkara Miśra. The argument involving the example of the monkey which felt envious of Hanumān's crossing the sea (p. 499) is a very strong one for proving the existence of the objective world. It also shows that one cannot interpret the world or its existence without realizing the limitations within which he must operate in using his faculties.

Udayana tries to explain the position of the Advaita system as distinct from the idealist and nihilistic schools of Buddhism, but he does not reject Advaita (pp. 501-29).

The scope and place of logical reasoning are very clearly discussed (pp. 537-41, 544-45). A detailed examination of the five Buddhist objections against the separate existence of wholes is provided (pp. 586-608), and solid arguments provided in favor of that Nyāya thesis (pp. 609-22).

The treatment of validity of an instrument of valid knowledge is subtle and thoroughgoing, with the result that Gaṅgeśa, the author of the *Tattvacintāmaṇi*, did not have much to contribute by himself to this topic. He had to restate Udayana's arguments (pp. 675-701). It is Udayana alone who refers to Vācaspati Miśra's view on the validity of an instrument of valid knowledge (p.698).

How belief in the need to reject the existence of the self would lead to dangerous consequences is well expounded (pp. 814-15). The author's contribution is unique in establishing the self as distinct from the body by adducing logical arguments and passages from the Vedas in support of them (pp. 819-24). The apparent diversity in the contents of Vedic passages is well explained in order to show that there is no discrepancy in the import of those passages (pp. 823-24). That God's existence need not be rejected on the ground that God's having a body is not necessary, is so elaborately treated that Udayana himself refers to the present treatment when dealing with this matter in his *Nyāyakusumāñjali* (pp. 836-61, 878).

Why the elite owe allegiance to Vedic teachings is explained with abundant humor and irony (pp. 885-90). The treatment of this matter is identical with that in the *Nyāyakusumāñjali* except that the present account is more extended. Likewise, why people embrace Buddhism is dealt with more sarcastically in the *Kusumāñjali* than in this work (p. 907). Denial of a place for pleasure in the state of liberation is dealt with to great effect, though it gets even more detailed treatment in the *Pariśuddhi*.

Much credit is due to the author's attempt to give a place to all systems of thought, including those of the Cārvākas and Bauddhas, in the graded treatment of the stages of realization. Noteworthy in this connection is the author's citation of Vedic passages to support each school's theory and to show that each such theory does not deserve final acceptance (pp. 935-36).

Udayana's language, particularly in the *Ātmatattvaviveka*, is terse and simple but

effective. It became less terse but more piercing as an effective weapon to attack opponents in *Nyāyakusumāñjali*. The following pages can be cited for simple and effective expression : 50, 344, 533, 629, 794, 915, 921, 922.

The *Ātmatattvaviveka* abounds in passages of humor and sarcasm. After refuting the positions of the Buddhists, Udayana frequently makes humorous comments on the position in which the opponent now finds himself. References : pp. 138, 187, 327, 410, 425, 433, 451, 459, 472, 481, 496, 542, 543, 563, 619, 627, 645. A few additional passages may be briefly described.

1. When there is no object, there need not be any discussion about its existence. The opponent is asked to say who, as between the dumb and the eloquent, is better at discussing nonexistent objects (p. 170).

2. The idealist Buddhist holds that in the objective world there are no differences between objects. The author asks : "Do two objects, which possess contradictory features, enter into the place of refuge called cognition, leaving aside their contradictory features, just as the snake and the mongoose are found to leave aside their natural enmity on entering into the hermitage of a sage of great tranquillity?" (p. 438).

3. The reference to a young monkey's envy at Hanumān's crossing the sea is very amusing (p. 499).

4. The nihilist cannot seek to deny cognition. The more he attempts to do so, the more does cognition present itself in all its reality. The nihilist's attempt to use an argument to deny cognition is akin to trying to extinguish a lamp by another lamp and thus bring in darkness (p. 633).

Udayana mentions the following Buddhist writers by name : Prajñākara (p. 907); Dharmakīrti (p. 907); Jñānaśrī (p. 292) as the teacher of Ratnakīrti (pp. 421, 423); and Dīpaṃkara (p. 907).

While interpreting passages in the *Ātmatattvaviveka* Śaṃkara Miśra and the other commentators whose commentaries are edited in B2676 identify certain passages which give the *prima facie* view as those belonging to the Buddhist writers cited below: Jñānaśrī : pp. 293, 289, 316, 356, 366, 371, 421, 423, 427, 436, 453, 464, 470, 481, 489, 508, 839, 841; Dharmakīrti : pp. 385, 289, 232, 380, 406, 407, 839, 841; Dignāga is mentioned on p. 289, Dharmottara on p. 296 and Prajñākara on p. 232; Ratnakīrti : pp. 421, 435, 462, 465.

Several passages in the *Ātmatattvaviveka* are taken from the works of Jñānaśrī and Ratnakīrti. The passage beginning with the words "yadyapi nivṛttimaham pratyemi" on p. 279 is taken from Ratnakīrti's *Apohasiddhi*, B2724, p. 53.

45. Cf. B2694.

46. B2684.

47. According to Gopinath Kaviraj this word should be translated as "liberated." Cf. B2692, translation of this passage.

48. Cf. B264(2).

49. Cf. B264(2) and B242.

30. APARĀRKADEVA

1. In his Introduction to B2510, p. 11.
2. *Ibid.*, pp. 11-12, quoted from P. V. Kane, *History of Dharmaśāstra*.

31. ŚRĪKAṆṬHA

1. Cf. J. S. Jetly, B3245.
2. D. C. Bhattacharya, B6105, p. 43.

3. J. S. Jetly, B3245.
4. D. C. Bhattacharya, B2707.

32. THE VṚTTIKĀRA

1. Anantlal Thakur, B2987A.
2. Thakur, Introduction to B58, p. 17.
3. B2987A.
4. *Ibid.*

33. VALLABHA

1. D. C. Bhattacharya, B6105, pp. 58-60. Also B2707.
2. Bhattacharya, B6105, p. 61.
3. M. R. Bodas, Introduction to B2279, pp. 41-42.
4. Bodas cites R. G. Bhandarkar's *Early History of the Deccan* for this information, *ibid.*
5. Bhattacharya, B2707.
6. However, Gopinath Kaviraj gives Vallabha as "end of 12th century," since he is referred to by the poem of 1226 and by Vādīndra, whom Kaviraj dates as flourishing in 1225. Cf. G. Kaviraj, B6007, p. 637.
7. The foregoing paragraph is by the General Editor.

34. VARADARĀJA

1. S. C. Vidyabhusana, B7649, p. 373.
2. G. Kaviraj, Introduction to B2985.
3. Th. Aufrecht, *Catalogus Catalogorum* I, 107, 550.
4. Kaviraj, Introduction to B2985.
5. For additional remarks about Varadarāja see also A. Thakur, B2680, note 9 on p. 181; N. C. Bhattacharya, Introduction to B2981, p. xii; A. Venis, B2986; G. Kaviraj, B6007B; N. C. Vedantatirtha, Introduction to B2696; D. N. Shastri, B6152, p. 121; Umesh Mishra, *History of Indian Philosophy*, Vol. II, 207-17.

35. ŚIVĀDITYA

1. Cf. for instance, V. S. Ghate, Introduction to B2979; A. Winter, B2978, who quotes R. S. Tailanga in support; D. Gurumurti, Introduction to B2980; J. S. Jetly, Introduction to B2984. According to Gopinath Kaviraj it was V. P. Dvivedin who was responsible for the identification of Śivāditya with Vyomaśiva.
2. Winter, B2978, and others. Part of the confusion over Śivāditya's date stemmed from inaccurate dating of Śrīharṣa and Udayana.
3. D. C. Bhattacharya, B6105, p. 62.
4. Cf. A. Thakur, B2680 and D. C. Bhattacharya, B6105, as against Subrahmanya Sastri, B2679, pp. 44-45, who identifies the work he is editing as by Udayana.
5. Cf. M. R. Telang, Introduction to B3035, p. xix, and Subrahmanya Sastri, B2975.
6. Subrahmanya Sastri, B2975.
7. For additional references to Śivāditya, cf. P. Tuxen, B3073, p. 166; P. Masson-Oursel, B7674, p. 190; and B. Faddegon, B2603, pp. 16-17 *contra* Masson-Oursel; N. C. Bhattacharya, Introduction to B2981.

36. VĀDĪNDRA

1. Cf. M. R. Telang, Introduction to B3035, and A. Thakur, B3037.

2. Gopinath Kaviraj, B3034, p. 5.
3. Thakur, B3037.
4. Kaviraj, B3034.
5. Thakur, B3037.
6. Thakur, B3037.
7. See Thakur's Introduction to B56; also B3037.
8. Thakur, B3037.
9. Kaviraj, B3034.
10. Telang, Introduction to B3035.
11. Telang quotes T. M. Tripathi's Introduction to B3219 to this effect.
12. Here begins the summary prepared for the present volume. Professor Sreekrishna Sarma has also published an article on the *mahāvidyā* syllogism. See B6155C.
13. Telang, Introduction to B3035, pp. ix-x.
14. Anantlal Thakur, B3037, says that all the manuscripts are defective.

37. BHAṬṬA RĀGHAVA

1. G. Kaviraj, B6007, although P. L. Vaidya's notes in B2504 figure it out that Vādīndra and Rāghava were "fellow students" (p. 14).
2. G. Kaviraj, Introduction to 3034.
3. P. L. Vaidya, notes in B2504.

38. DIVĀKARA

1. See D. C. Bhattacharya, B6105, pp. 70ff.
2. Umesh Mishra, *History of Indian Philosophy*, Vol. II, 225-27.

39. VĀDI VĀGĪŚVARA

1. V. Raghavan, B2749, pp. 35-39.
2. Raghavan, B2749.
3. The following quotations are taken from E. P. Radhakrishnan, B2748.

40. NĀRĀYAṆA SARVAJÑA

1. D. C. Bhattacharya, B6105, p. 91.
2. Umesh Mishra, *History of Indian Philosophy*, Vol. II, 219.

41. KEŚAVA MIŚRA

1. Ganganatha Jha, preliminary note to B3072.
2. D. C. Bhattacharya, B6105, p. 64.
3. Concerning his date, see Jha, preliminary note to B3072; Bhattacharya, B6105; Paranjpe, Introduction to B3067; Tuxen, B3073, p. 166; Masson-Oursel, B7674, p. 242; D. R. Bhandarkar, Introduction to B3076; E. P. Radhakrishnan, B2726; Umesh Mishra, *History of Indian Philosophy*, Vol. II, 229-31.
4. Mishra, *ibid.*, p. 231.

42. ĀNANDĀNUBHAVA

1. I.e., B2510.
2. Subrahmanya Sastri, Introduction to B2510.
3. Subrahmanya Sastri, *ibid.*

43. PRABHĀKAROPĀDHYĀYA

1. Cf. D. C. Bhattacharya, B6105, p. 69.

2. On this see E. Frauwallner, "Prabhākara Upādhyāya," *Wiener Zeitschrift fur die Kunde des Sud—und Ostasiens*, 9 (1965), 198-226.

3. Bhattacharya, B6105.

44. ABHAYATILAKA

1. J. S. Jetly, B3245.

2. See also D. C. Bhattacharya, B6105, p. 43; Umesh Mishra, *History of Indian Philosophy*, Vol. II, 217-18.

45. SONDAḌOPĀDHYĀYA

1. D. C. Bhattacharya, B6105, pp. 80-82.

2. Cf. Bhattacharya, B6105, pp. 80-82, and Umesh Mishra, *History of Indian Philosophy*, Vol. II, 228. Also Gopinath Kaviraj, B3642. V. Varadachari notes that Maṇikaṇṭha Miśra apparently knows of Sondaḍa's peculiar theory and refers to it in the *Nyāyaratna*.

46. MAṆIKAṆṬHA MIŚRA (Footnotes 2-46 provided by V. Varadachari)

1. D. C. Bhattacharya, B6105, pp. 85-87. Gopinath Kaviraj remarks that according to one tradition the "tiger" definition of Gaṅgeśa's section on definitions of pervasion in *Tattvacintāmaṇi* was originated by "Maṇidhara" (=Maṇikaṇṭha?). Cf. G. Kaviraj, B6007, p. 637. See also U. Mishra, *History of Indian Philosophy*, Vol. II, 234-35.

2. Judgment that *h* is present in *p* is the first stage in the first consideration, judgment of the invariable concomitance between *h* and *s*, the second, and the complex judgment which cognizes in *p* the presence of the *h* as qualified by invariable concomitance with *s* is the third. See *Nyāyavārttika* (B223), p. 45; *Lakṣaṇamālā* (B2679), p. 46.

3. Cf. *Nyāyakusumāñjali* III.7.

4. Cf. *Khaṇḍanakhaṇḍakhādya*, B3052 (reprint), p. 370.

5. By superimposition is only meant an assumption made hypothetically.

6. Udayana's definition appears to be more clear. According to him, reasoning consists in finding scope for the undesirable (result) to become the pervader by admitting the pervaded. Most later writers adopt his definition.

7. Cf. *Ātmatattvaviveka* (B2678), p. 863. Some recognize 11 kinds of *tarka*. See *Sarvadarśanasaṃgraha* (edition unidentified), p. 91.

8. Cf. *Khaṇḍanakhaṇḍakhādya* (B3052, reprint), p. 721.

9. Varadarāja, the author of the *Tārkikarakṣā*, enumerates 5 constituents of *tarka*, in the absence of each one of which there arises a fallacious *tarka* argument. His exposition (B2986, pp. 186-93) of how reasoning operates is clear and is not referred to by Maṇikaṇṭha. According to Viśvanātha, the author of the *Nyāyasūtravṛtti*, self-residence, mutual dependence, and circularity each have 3 varieties. (See the *Vṛtti* on NS I.1.40.)

10. This is also rejected by Gaṅgeśa. Cf. *Tattvacintāmaṇi*, B3391, p. 202.

11. This is rejected by Gaṅgeśa, B3391, p. 201, but was held by Bhāsarvajña, B2503, p. 5.

12. Again, this definition is not admitted by Gaṅgeśa, B3391, p. 201 but was held by Varadarāja, B2986, p. 65.

13. This criticism seems to be unfair, since invariable concomitance is required

to be proved as correct precisely insofar as it is lacking in *upādhis*. Hence, this definition is admitted by Varadarāja, B2986, p. 65, Śrīvallabha, B2928, p. 54, and Gaṅgeśa, B3391, p. 322.

14. The commentator Nṛsiṃhayajvan identifies these as the author of the *Nyāyabhūṣaṇa* and others. He refers to the interpretation of the word "only" found in this definition as intended to set aside the view that the *h* and *s* must have the same substratum. He identifies the author of this interpretation as Gadādharamiśra, the author of *Nyāyabhūṣaṇaprakāśa*.

15. This view is not referred to by Udayana but is maintained by Gaṅgeśa. Cf. B3391, p. 433.

16. This definition is admitted by Varadarāja, B2986, p. 66.

17. This definition is said to have been implied in Udayana's definition (see *Kiraṇāvalī*, B2706, p. 301 : "sādhanāvyāpakatve sati sādhyavyāpakatva.") Nṛsiṃhayajvan (on p. 72) seeks to attribute this definition to Śrī Vallabha (B2928, p. 54), Gaṅgeśa rejects the definition (B3391, p. 523.)

18. Gaṅgeśa also rejects it. B3391, pp. 534-36.

19. This definition is attributed to Ratnakośakāra. See B3391, pp. 541-47. Gaṅgeśa's rejection/of this argument suggests his indebtedness to Maṇikaṇṭha's arguments.

20. Gaṅgeśa too rejects this. Cf. B3391, pp. 537-41.

21. Udayana (B2678, p. 863) states that an *upādhi* is some other *hetu* which is intended to be employed to prove the *sādhya*. That is, when there is a proper *h*, something else is sometimes treated as the *h* and for that reason is called *upādhi*. For instance, a certain characteristic (a crystal) may appear resting on another. Invariable concomitance, which is actually instanced by the latter, appears in the former which is held to be the *h*. It shines like the redness of China rose, which is refracted through it, but is not itself red. Thus it is called an *upādhi*. Vādīndra is said to have adopted Udayana's definition dropping the word *sama*. Cf. Vedānta Deśika's *Tattvamuktākalāpa* with *Sarvārthasiddhi* IV. 43.

22. See B3052 (reprint), p. 142.

23. See B2928, p. 66.

24. There is a discussion in this section concerning the view of the Ratnakośakāra on *satpratipakṣa*. On pp. 181-88 there is a review of the other fallacies—*asiddha* and *bādha*—and arguments to show that the 5 mentioned fallacies are all there are.

In the early period of the Nyāya school *anupasaṃhārin* was not recognized as a fallacy. Udayana makes mention of it while commenting on the *Tātparyaṭīkā* on Book One (Prof. Varadachari cites Chapter V, p. 55 of the manuscript of the *Pariśuddhi* in the Sanskrit Department of Madras University), though he makes no reference to it in commenting on the last *sūtra* (V.2.) In all probability it gained importance, which would account for Maṇikaṇṭha's trying to reject it. Gaṅgeśa recognizes it.

Some scholars replace *prakaraṇasama* (=*satpratipakṣa*) with *viruddhāvyabhicārin* (Varadarāja, B2986, p. 222; Bhāsarvajña, B2503, pp. 12-13). The Bhūṣaṇakāra defined *prakaraṇasama* as an *h* which has the 3 marks although it does not exist in one's own *p* or the *p* of the opponent. (B2503, p. 7).

Ajñānāsiddha is a fourth variety added by Varadarāja to the already accepted 3 kinds of *asiddha*. (Cf. B2986, p. 225).

25. Udayana notes that *vākchala* (the first of the 3 kinds) has 9 varieties, and that *upacārachala* also has 9 kinds. (See *Pariśuddhi* (ms) I, pp. 165-70.)

26. Udayana describes a futile rejoinder as having 7 parts (*aṅga*), namely : (1) carelessness or loss of intuition (*lakṣya*); (2) definition of the particular kind of futile rejoinder (*lakṣaṇa*); (3) birth of futile rejoinder (*utsthiti*); (4) its maintenance (*sthitipadam*); (5) its root cause (*mūla*); (6) result (*phala*); and (7) loss of the cause (*pātanam*). The specific defects may involve absence of the limbs which are expected to be found in a futile rejoinder, or the possession of a limb which is not desired to be there, or the applicability of it to a matter which is not the subject. Cf. Udayana's *Nyāyapariśiṣṭa*, B2705, p. 127.

27. On pp. 202, 209, 210, 211, 217, 219.

28. He is cited on the following : *apakarṣasama*, *pratidṛṣṭāntasama*, *prakaraṇasama*, *ahetusama*, *anityasama*, and *kāryasama*. His views on these topics are rejected.

29. Udayana refers to several other kinds of futile rejoinders (*Pariśuddhi* (ms) on V. pp. 29-36, such as *asādhyasama*, *aprasaṅgasama*, *upamānasama*, *siddhasādhanasama*, and others, and shows that they get included within the 24 kinds enumerated by Gautama. Bhāsarvajña does not deal with *prasaṅgasama*, *pratidṛṣṭāntasama*, *saṃśayasama*, *prakaraṇasama*, *arthāpattisama*, *upapattisama*, *anityasama*, and *kāryasama*, and remarks (B2503, pp. 22, 23) that Gautama's list is only illustrative and not exhaustive. *Asiddhasama*, *aniṣṭasama*, and such others, which were not enumerated by Gautama, are referred to by Prajñākara in his *Pramāṇavārttikālaṃkāra* (B1181, footnote on p. 45). The *Tarkaśāstra* (B575, pp. 12-30), attributed to Vasubandhu, deals with 16 futile rejoinders, omitting some of those enumerated by Gautama.

30. Udayana defines defeat as the destruction of the opponent's haughtiness (B2705, p. 79).

31. B2478, Part II, p. 197.

32. Udayana mentions in addition : *dvādaśāyatana*, *caturāryasatya*, *kapāla*, *puroḍāśa*. Cf. B2705. pp. 97-98.

33. B2986, p. 337.

34. B2986, p. 336.

35. B2986, p. 337.

36. B2986, p. 341, and Hemacandra, *Pramāṇamīmāṃsā*, B2949, p. 68 :

"śaṅkhaḥ kadalyām kadali ca bheryām
tasyām ca bheryām sumahadvimānam,
tacchaṅkha bherīkadalīvimāna-
munmattagaṅgāpratimam babhūva."

37. B2986, p. 351.

38. *Tātparyaṭīkā*, (edition unidentified), p. 510.

39. B2478, Part II, p. 206; B2986, p. 356.

40. B2986, pp. 355-56.

41. B2705, p. 123.

42. B2705, p. 125.

43. B2705, pp. 124, 126. Also *Pariśuddhi* (ms) V, pp. 53-55.

44. Maṇikaṇṭha's *Nyāyaratna* is intended to deal in the main with the types of debate. Hence he takes up topics which relate to that matter. Jayarāmabhaṭṭācārya (*Nyāyasiddhāntamālā*, B4286, p. 165) and Vyāsatīrtha (*Tarkatāṇḍava* IV (B3712, p. 344) refer to the views of Maṇikaṇṭha. Since the type of pervasion which Sondaḍa held is not referred to by Maṇikaṇṭha, he could have been slightly anterior to Sondaḍa, who is criticized by Gaṅgeśa. However, evidence contrary to this is provided in the Sanskrit Introduction to the present edition of *Nyāyaratna* (p. 109), while discussing the definition of *upādhi*.

Both in technique and treatment Maṇikaṇṭha enjoys an enviable reputation.

Little was known of him because of the popularity of Gaṅgeśa's *Tattvacintāmaṇi*. Maṇikaṇṭha's originality is remarkable in many instances. However, it must be said he is inferior to Udayana and to Varadarāja whose treatment of the topics of debate is exhaustive and has a direct appeal. The way in which the *prima facie* view is stated in a variety of cases suggests that he might have been familiar with the *Nyāyasiddhāntadīpa* of Śaśadhara, though this cannot be clearly established. In any case, Gaṅgeśa's debt to Maṇikaṇṭha is unmistakable.

47. ŚAŚADHARA

1. D. C. Bhattacharya, B6105, p. 90.
2. G. Kaviraj, B6007, p. 637.
3. V. Varadachari, B6069, pp. 29-30.
4. S. C. Vidyabhusana, B7649, p. 398, lists the chapters of this work and their subject matter.

48. TARAṆI MIŚRA

1. The foregoing information is from D. C. Bhattacharya, B6105, p. 79.

A FEW UNDATABLE WRITERS

1. D. C. Bhattacharya, B6105, pp. 93-94.
2. A. Thakur, B3037, p. 29.
3. A. Thakur, B2663, p. 29.
4. A. Thakur, Introduction to B58.
5. H. Ui, B1048, pp. 14-15.
6. B. Faddegon, B2603, pp. 34-40.
7. D. N. Shastri, B6152, p. 107.
8. B. J. Sandesara, Introduction to B58, p. viii.

INDEX